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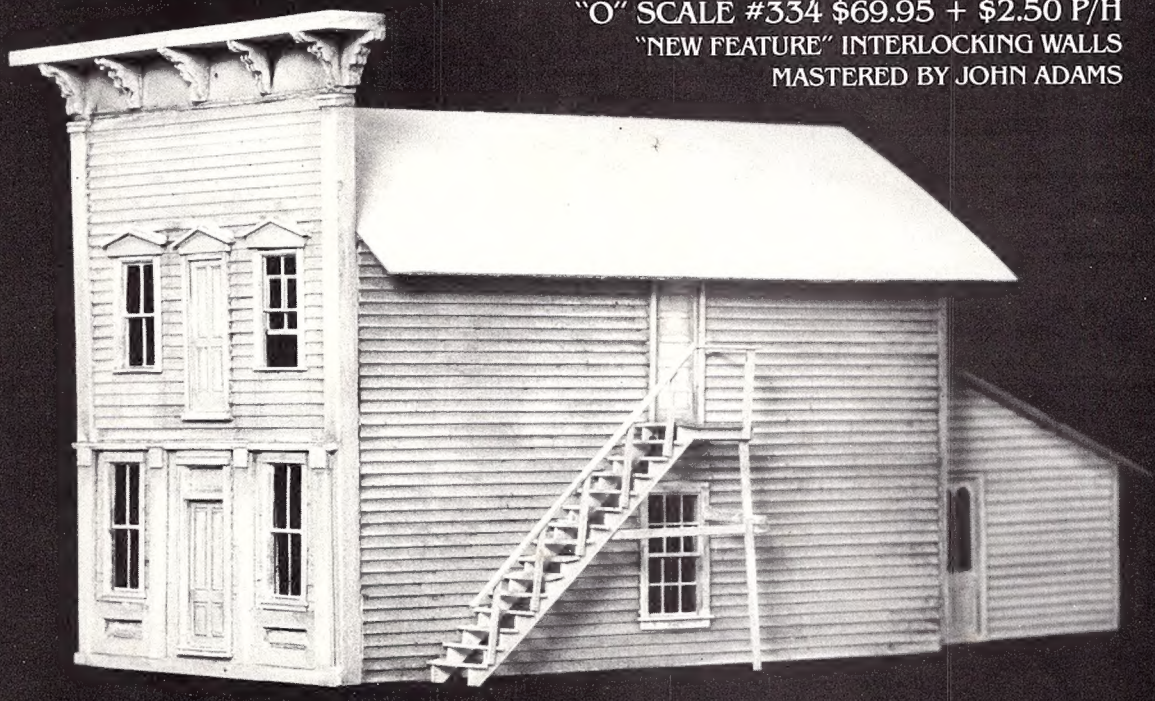

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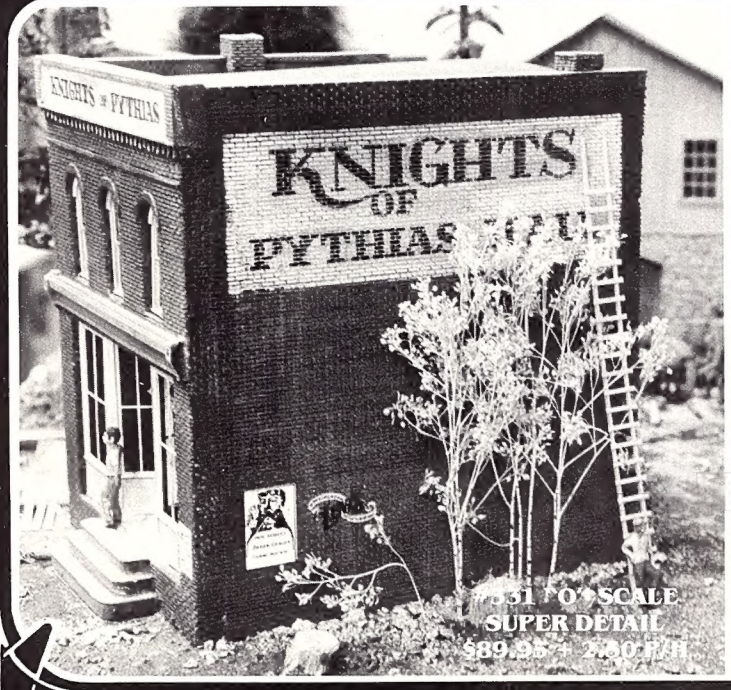

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NOVEMBER/DECEMBER 1988 VOLUME 14, NUMBER 5

SPECIAL FEATURE

18 **The Broughton Lumber Company Flume and Railroad**
Flumes and rails in the woods.
by Duane Ely and Tom Pomeroy

FEATURES

25 **Stillwater Mills #1**
A logging locomotive?
by Robert Stephens

31 **The Thomas Slate Quarry**
Three railways in a pint pot.
by Dave Rowe

36 **Scratch-building an Sn3 K-27 in Brass**
Not yet a dead art.
by Hayes A. Shaw

42 **Modeling 15-inch Gauge Railways in the Garden**
Something different.
by Mike Decker

54 **Up Clear Creek on the Narrow Gauge, Part 53**
Part 2 of a trip on the UC&N Clear Creek line.
by Harry Brunk

63 **The Narrow Gauge Scene**
Passenger cars of the Rio Grande, part 5.
by Charlie Getz

66 **Some Thoughts on Getting them Running**
The voice of experience.
by Jim Vail

71 **The Model Makers Notebook**
A vintage Shay in 3-foot gauge.
by Al Armitage

72 **Stillwater Mills #3**
A 14-ton Shay.
by Robert Stephens

78 **An On30 Boxcar**
Free-lance but fun.
by Ken Ruble

80 **Extra Narrow Gauge Junction**
Dual gauge, Rangeley, and the Sandy River today.
by Dick Andrews

COVER

Our cover painting, "Tuolumne Freight," is by Patrick Karnahan and shows Sierra Railway #24 in the late 1940s on a curve near Tuolumne City, California. The engine has picked up a train of cut lumber from the West Side mill and is hauling it down to Oakdale for interchange with the Southern Pacific. Patrick accepts commissions and can be reached at the U.S.D.A. Forest Service, Stanislaus National Forest, 19777 Greenley Road, Sonora, CA 95370.

PLANS

17 **Oahu Railway & Land Company 4-6-0, #85**
by Jim Dunlop

18 **Oahu Railway & Land Company Baggage Car #43**
by Jim Dunlop

26 **Stillwater Mills Vertical Boiler Locomotive #1**
by Robert Stephens

48-49 **The Ridgway Toilet Building**
by Mike Blazek

50-51 **Westfield Plantation Porter #1**
by Ed Gebhardt

62 **Yosemite Short Line Hopper/Flatcar Details**
by Gary Caviglia

68 **Yosemite Short Line Hopper/Flatcar Car Details**
by Gary Caviglia

69 **Yosemite Short Line Porters, 1 and 2**
by Gary Caviglia

71 **A 14-ton Class A Shay**
by Al Armitage

78 **Free-lance, 30-inch Gauge Boxcar**
by Ken Ruble

DEPARTMENTS

5 **Robert's Ramblings: 1988 NG Convention Report**

12 **New In Review**

15 **In Brief**

84 **Gallery: 1988 Narrow Gauge Convention Winners**

90 **Book and Video Reviews**

96 **Riptrack**

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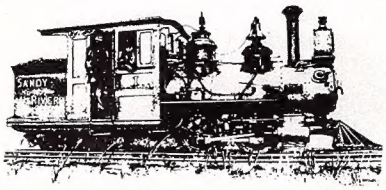

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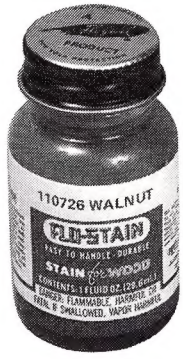

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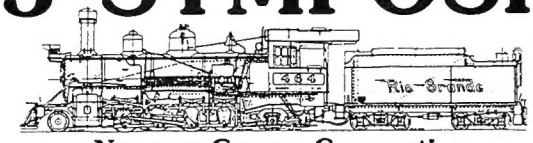

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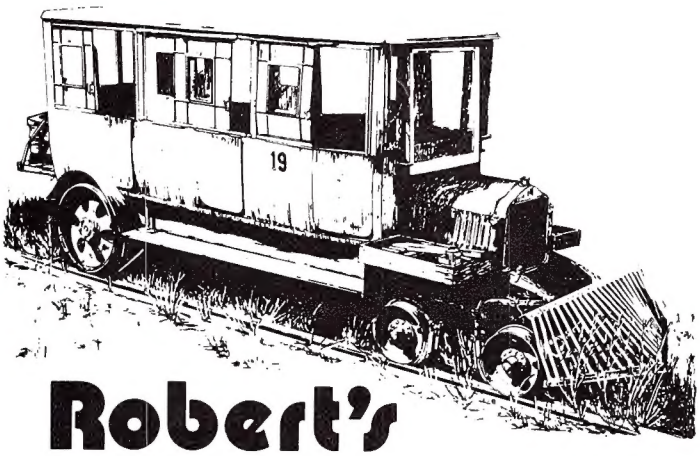


Robert's Ramblings....

Here are Bill and Vicki Turner of Arkansas Valley Scale Models. That's their latest kit in front of them. It is called Miss Vicki's Social House, named after guess who?

Jeff Saxon of American Model Builders shows off that firm's product line. Jeff won First Place in steam locomotives and maintenance-of-way in the model contest.

WILKES-BARRE, 1988
Photos by Bob Brown

The Eighth National Narrow Gauge Convention was held in Wilkes-Barre, Pennsylvania, August 17 to 20, 1988, and was a magnificent success. There were 888 narrow gaugers registered –more than the Pasadena show had last year. I mention this only because past NNG Conventions in the east (Valley Forge, Pennsylvania and Columbus, Ohio) had significantly fewer attendees than the western conventions (Denver and Pasadena). It's great to see narrow gaugers flocking to the east and I hope this good turnout is a trend for railroad conventions everywhere. Credit for the Wilkes-Barre convention goes to Oliver Billings, Bob and Marilyn Love, and Tom Sullivan who put it on, and to their helpers: Roger Cutter, Steve Fisher, Jim Johnson, Jack Kennedy, Richard Marcus, Ray Priester, and George Repenn.

The convention site was pleasant and we filled the Woodlands Inn and several other hotels as well. The only complaint I heard was that the three clinic rooms were too small, but that's a small price to pay for a great convention.

The backbone of any convention is the manufacturers' room and this convention had a lot of goodies on display. There were 55 manufacturers displaying everything from Nn3 to LGB. I would love to list them all but there simply isn't space. The manufacturers' room was open from 8:00 a.m. to noon and then from 7:00 p.m. to 11:00, allowing the exhibitors to enjoy convention activities in the afternoon.

There was an equally large room with ten operating modules. These ranged from HOn3 to LGB and included a wonderful On2 model of the Monson Railroad, a 10-foot x 34-foot On3 East Broad Top set of modules with ten scenes depicting actual locations on the EBT, and a large HOn3 EBT module. There were also modules in On30, On3, and Sn3.

There were 13 layouts on the layout tour ranging from LGB to HOn3. Some of them were "a fur piece" from the convention. One day we drove all afternoon to see Bob Love's On3 line, Frank Titman's S gauge railroad and Brad Robbin's On3 line. Long hours but well worth it. I was also able to see Gary Schmauch's Sn3 layout and Roger Malinowski's new Sn3 railroad converted from an older On3 line (see March/April 1988 **GAZETTE**).

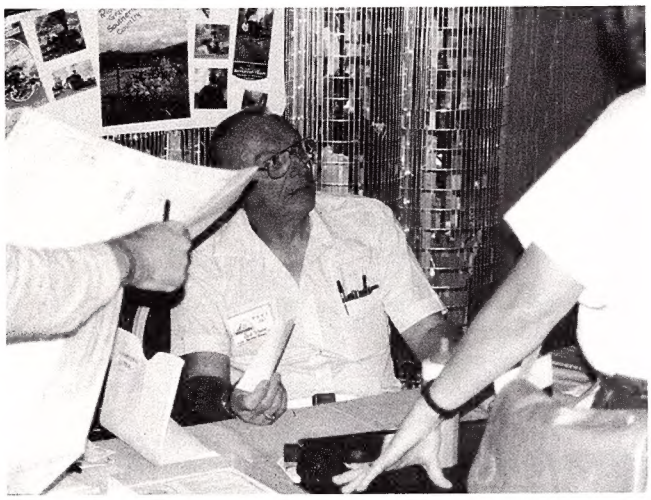
The clinic line-up was outstanding. There were 29 clinics in the program. They concentrated on eastern narrow gauge and the coal industry but there were many clinics on weathering, painting, lighting, figure painting, and scenery. There was one clinic given by retired judge Bill Hammer on estate counseling which was well attended by the wives at the convention.

Marilyn Love organized and conducted a full program of activities for the ladies. In addition to the estate counseling clinic, they did quilling (?) made chicken in a hoop, pine cone plaques and went to Reading for a shopping tour.

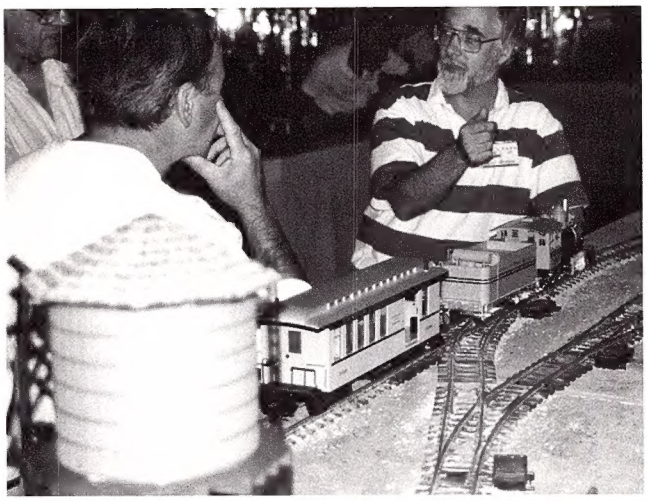
There were several historic tours available each afternoon. The most interesting to me was the Pennsylvania Anthracite Heritage Museum and the Lackawanna Coal Mine Tour. The Eckley Miner's Village was also open and provided a pleasant walk into the past.

The awards assembly was held Saturday evening. Awards for both models and photos were given out. There were several special awards. I gave the **GAZETTE** Award to Larry Nyce for his S scale model of the Argo ore chute. Larry also won the new P-B-L Award for his model. This award comes with a plaque and a $500.00 merchandise certificate for P-B-L products. The Sn3 MODELER Award went to Vince Pellitteri for his Sn3 Shay featured in the September/October 1988 **GAZETTE**. The TWO FOOT MODELER Award was given to Chris McCheney for a two-foot gauge caboose model. During the convention Bill Schaumberg, editor of RAILROAD MODEL CRAFTSMAN, Jim Wild, and Dwayne Easterling had an on-going clinic building a module. I believe Chris also won the drawing for this module.

I was deeply honored to be awarded the Donald G. Brown Memorial Award. It was a special honor to receive it from Don's widow, Sandy Brown.



Here is Bob Shank signing up people for the Ninth National Narrow Gauge Convention next year in Durango, Colorado.



This is what it's all about. Talking over trains with good friends at the LGB module.

The contest was full of beautiful models and the main contest winners are shown in this issue's "Gallery."

Bids for future conventions were discussed and approved for San Antonio, Texas in 1993 and for Denver in 1994. So we have hosts all the way to 1994. The future conventions will be held as follows:

1989: Durango, Colorado from September 20 to 23.

1990: Tenth anniversary convention in St. Louis, Missouri.

1991: Seattle, Washington

1992: Colorado Springs, Colorado

1993: San Antonio, Texas

1994: Denver, Colorado

After the awards and convention discussion, Charlie Getz held the auction. Charlie has become the official NNGC autioneer and his wit and humor always make for a fun auction. I contracted a miserable throat infection while in the east and went to my room feeling like I was ready to die right after the convention bids, thus missing the auction. Charlie told me that he had a blast moving some 85 items in slightly under 90 minutes. He hopes that all of you who attend a NG convention in the future will attend the auction not just because of the bargains but also because everyone has so much fun together.

Charlie also mentioned to me that several people were concerned about getting to the next convention in Durango. He said they were shocked to discover that Durango is actually served by a jet airport. You can fly into Durango on an United subsidiary, Aspen Aire, and as far as he knows other airlines as well so check with your travel agent.

So, another fine convention thanks to a lot of work by its producers and a good turnout by narrow gaugers. Thanks fellows and gals for furthering the fellowship (yes, gals can be fellows too).

I want to thank my good friend Gordon North for picking me up, putting me up, and putting-up with me and my throat infection. I was no fun to be with but he persevered and drove me wherever I wanted to go, as well as giving me a lot of sympathy when I was ill so many miles from home.

Bob Brown

Charlie "Rambles"

Bob is being typically modest about winning the Donald G. Brown Award. It was well deserved. Past recipients were Cliff Grandt and Al Armitage. Like them, Bob has made significant and substantial contributions to narrow gauge modeling, the criteria for the award. Back in the 1960s, Bob was a pioneer advocate of fine scale narrow gauge. In order to keep in touch with other modelers, Bob started his FINELINES magazine in 1964. At first reproduced on a ditto machine but soon printed, FINELINES garnered a reputation for expanding the boundaries of the modeling art. The **GAZETTE** was a natural outgrowth of FINELINES and without Bob there would be no **GAZETTE**. Bob encouraged the holding of the First National Narrow Gauge Convention in St. Louis in 1980. He is an award-winning modeler in his own right and his Tuolumne Forks layout continues to inspire all who see it. He always has time to help another modeler and truly has fostered the "fellowship of fine modelers" that the **GAZETTE** is all about. Incidentally I know he is proud of winning this award, and I am proud he is my friend. *Charlie Getz.*

Remains Found

Tom Young, who owned and operated the Charing Cross Book Store in Silver Plume, Colorado, was reported missing in September 1987 (see January/February 1988 **GAZETTE**). On Sunday, July 31, his remains and the remains of his dog Gus were found in the mountains about two hours away from Silver Plume. A gun was found near the body and authorities presumed the death a suicide. Memorial donations may be made to People for Silver Plume, Inc., a fund set up to maintain the Colorado & Southern Caboose that Tom helped restore. Our sincerest condolences to Tom's family.

By a strange coincidence, Keith Reinhard, who started an antique store in the shop where Tom had sold books, disappeared while hiking on August 7. A massive search that took the life of a Civil Air Patrol pilot was called off after it failed to turn up any sign of Reinhard.

Thanks to all the **GAZETTE** readers who sent us clippings on these sad stories.

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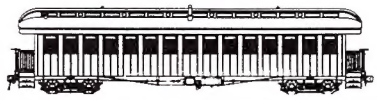

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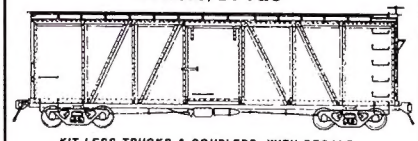

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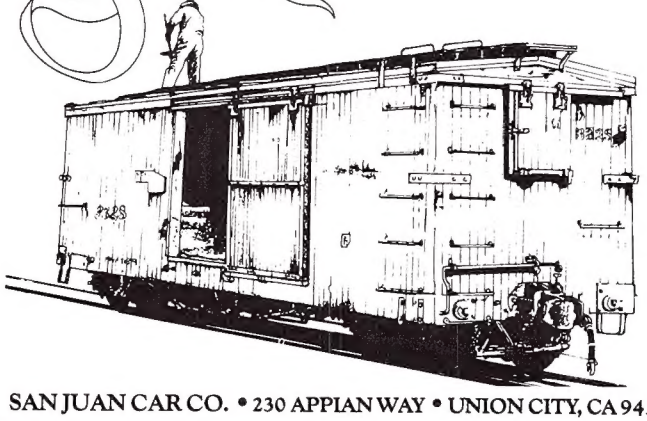

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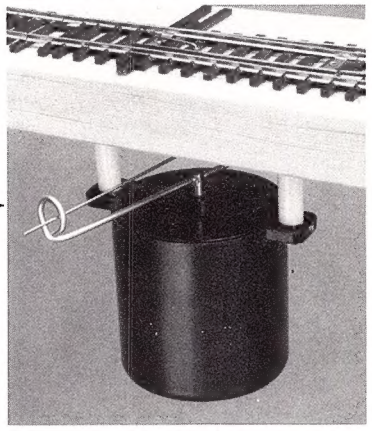

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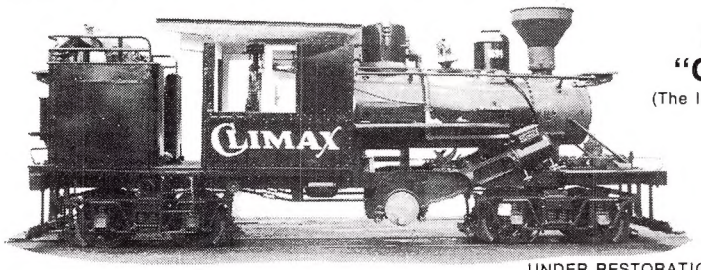

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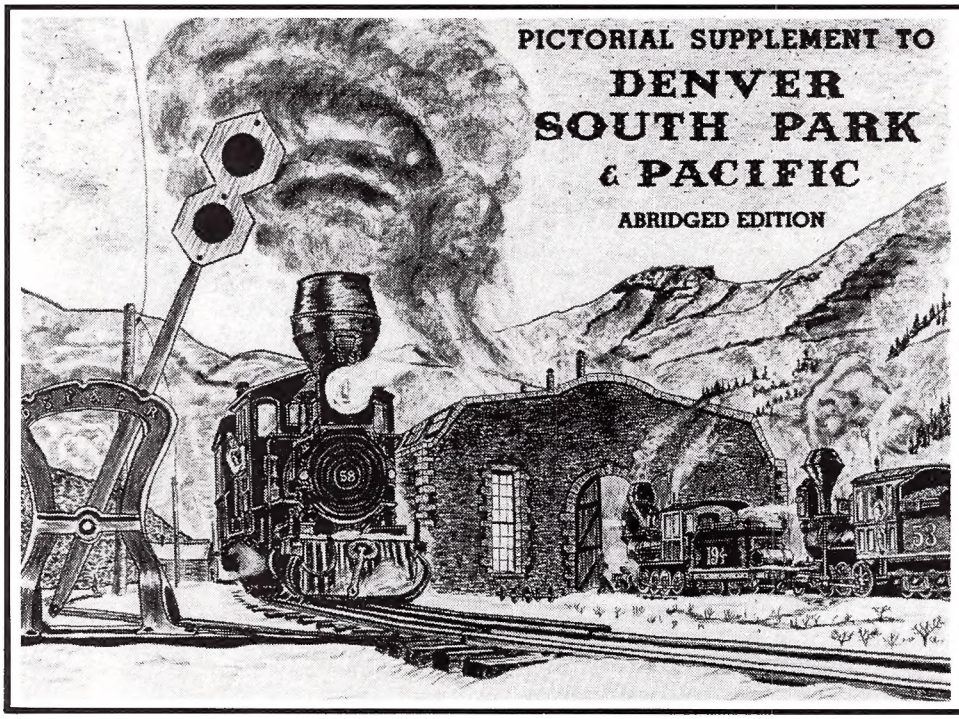

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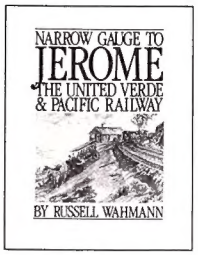

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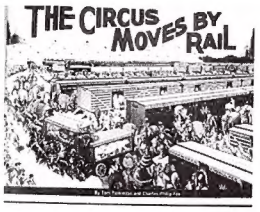

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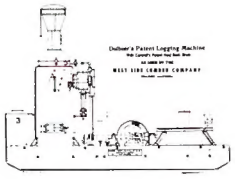

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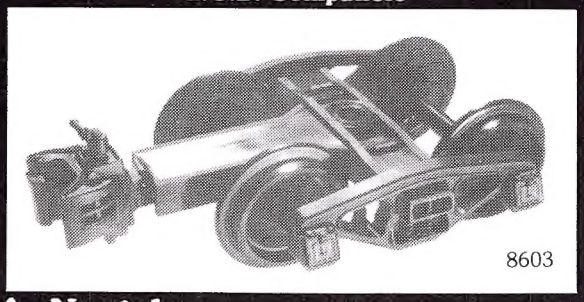

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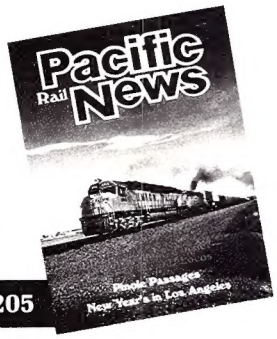

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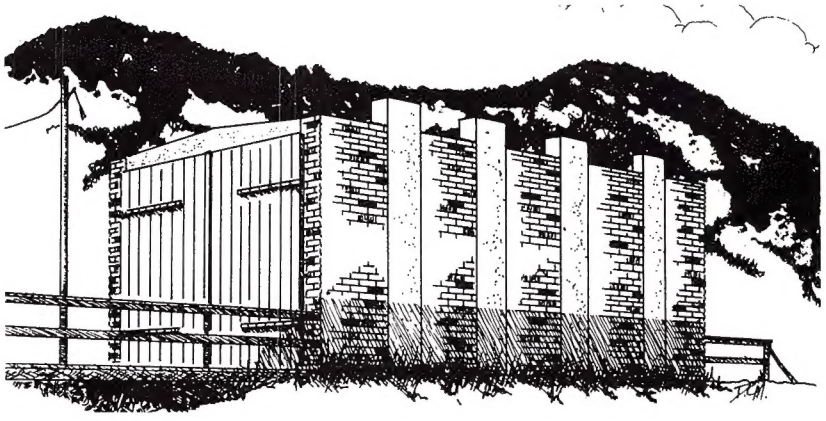

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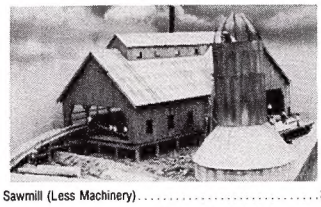

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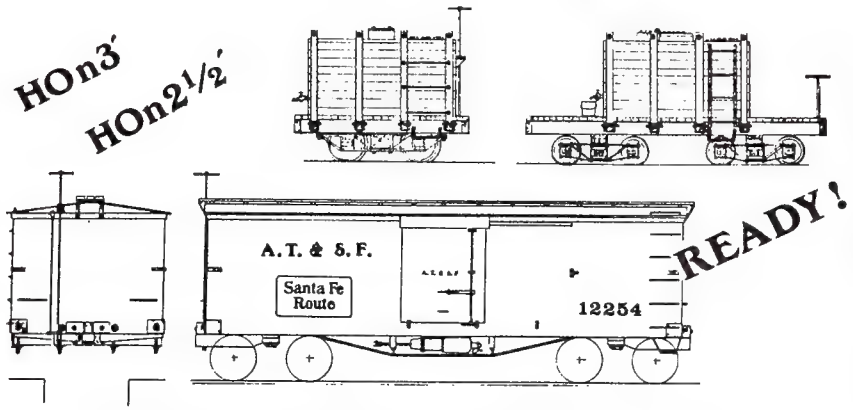

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NEW in REVIEW

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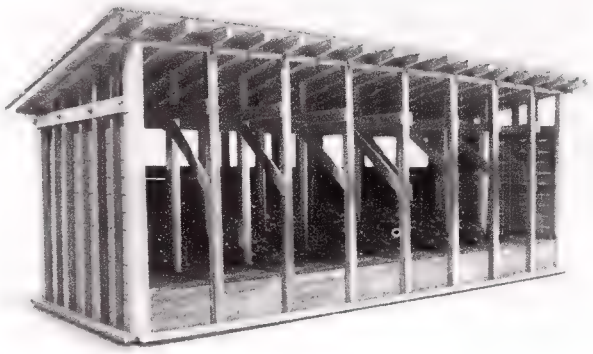
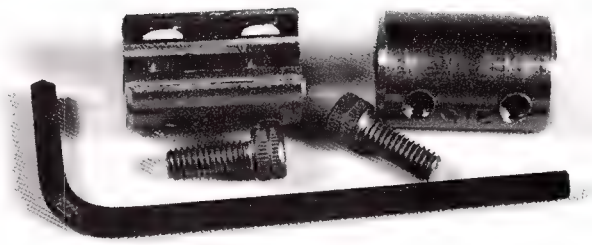
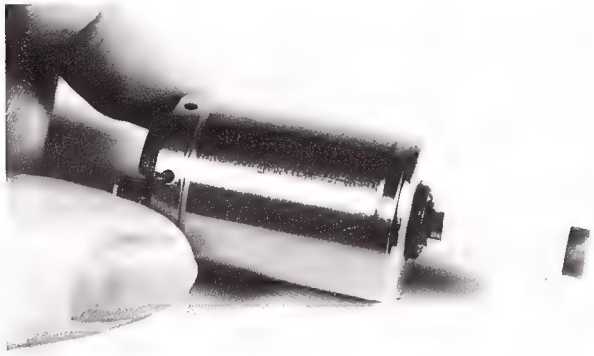
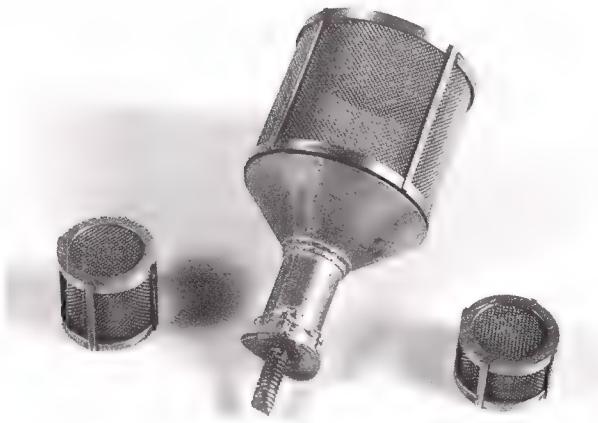




Two Point Five Models, Box 187 Buffalo Creek, CO 80425 has some super strong LGB-sized rail joiners for sale. These joiners are machined from brass and are designed to make sure you have positive electrical contact between the rails on your outdoor railroad. Each joiner has two stainless steel machine screws which can be tightened with an Allen wrench (included) until they squeeze the rail and make good contact. The joiners sell for $2.50 each with a minimum order of 24. There is a 20 percent discount on orders of 100 or more. *Bob Brown.*

Hobby Specialties, 508 Redondo Dr., Ballwin, MO 63011 has a very high quality micromotor available. This motor is the one used in a very popular British drive unit known as a Portescap drive. The motor is about 1½ inches long and ⅞-inch in diameter with a ⅜-inch long shaft. The design of the motor makes it exceedingly smooth and quiet –it has high efficiency and reliability and a linear RPM to voltage response. The motor can deliver several times the nominal stall torque without danger of demagnetizing its permanent magnet. The price is $15.00 each plus $2.00 shipping. *Bob Brown.*

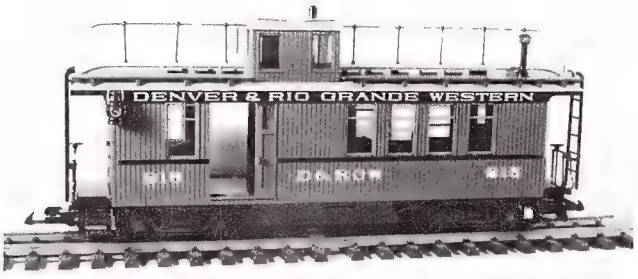




Pacific Short Line Railroad Co., 710 N. 19th St., Cottage Grove, OR 97424 is continuing to bring out wonderful details and kits for the O scale logger. Their latest is a series of three spark arresters. The first is for a Shay and is 48 scale inches in diameter and just over 7 scale feet high. It sells for $9.50. They also have two smaller arresters. One is 24 x 22 scale inches and the other is 24 x 15 scale inches. Both sell for $5.95. PSLRR is planning to bring out other spark arrestors. Who knows, one may be for your favorite engine. *Bob Brown.*

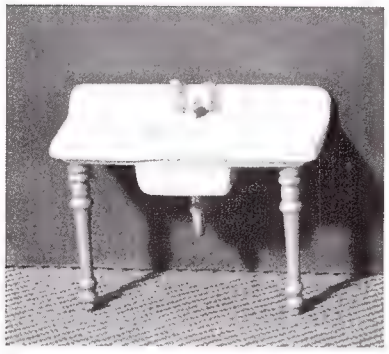
LGB of America has four new American prototype models plus a new knuckle coupler available. They have brought out a new Mogul, a Pagosa combine, a CONOCO tankcar, and an East Broad Top steel hopper. I will describe the Mogul, combine, and couplers in this issue, followed by the other two cars in the next issue. The Mogul is most impressive, based on one of the little Cooke B-3-C engines that once ran on the Colorado & Southern. It is a beautiful, chunky little 2-6-0 that would be at home on almost any narrow gauge line. It comes in a nice black color with silver-colored rods, crossheads and guides. The smokebox and smokebox front are also silver. The handrails and boiler bands are brass. The cab windows are wood color and there is an engineer with his hand on the throttle. A battery-driven synchronized sound system in the tender chuffs with the revolutions of the drivers. An air compressor sound cuts in for about 20 seconds after the engine has stopped, and there is a background hiss when the engine is still. The whistle toots when the engine starts up and it and the bell can be controlled by track magnets. Two are provided with the locomotive. The lights all work including one in the firebox that simulates a roaring fire. The sound can be turned off and its volume controlled by a switch under the tender. The Cooke builder's plates are nice touches (they can be easily read) as is the number plate on the boiler front. The engine is lettered for C&S #6 in silver lettering. This is a beautiful engine that runs well and has all the character and charm of the prototype. It will look wonderful plying the rails of your garden railroad.

A second exciting new U.S. prototype LGB model is their new Pagosa combine, based on the Denver & Rio Grande Western's Combine #215. The car is painted caboose red and has wood grain cast into the siding. The roof is pebbled and is painted silver. There are running boards and a handrail running along the roof. The letterboard is black with white lettering. All of the doors work and there are benches, a stove and coalbox, and a table inside the car. The threads are even cast into the truss rods, a nice touch on such a large model. The marker lamps come off and are big enough to easily contain working lights. This is the perfect car for your mixed train.



The new LGB knuckle couplers simply screw onto the tang projecting from the archbar and passenger trucks used on the American prototype models. Just unscrew the LGB hook-type coupler and screw on the new knuckle couplers. The couplers are spring-loaded so they snap open, and the head of the coupler swivels on its shank. The couplers can be uncoupled by pushing up on tangs projecting from their undersides. There is a ring on the top of each coupler that should work with an uncoupling bar.

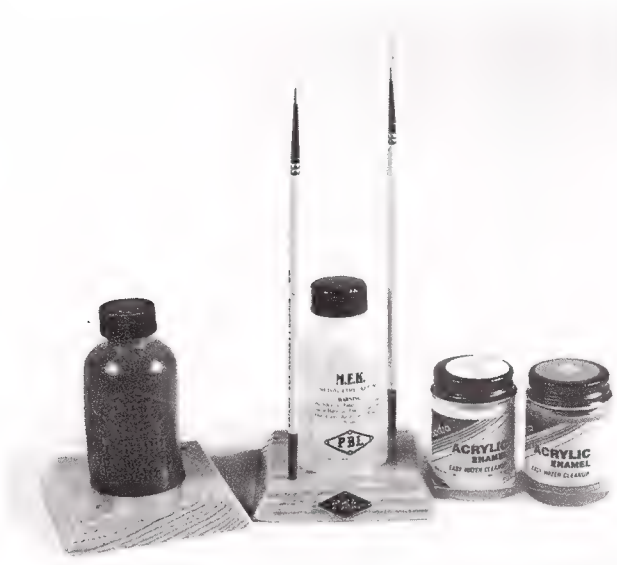
See your local LGB dealer for these fine new American prototype models and couplers. *Bob Brown.*



Design Technics Miniatures, 6420 West 95th St., Suite 201, Overland Park, KS 66212 has a line of ¼-inch scale white metal dollhouse furniture available. The photos show only two of the many items they have. My samples included a bath tub for $2.00, a toilet for $2.00, the kitchen sink shown for $2.75, and the stove in the photo for $6.00. I have also seen their old-fashioned refrigerator and bathroom sink. These would be neat additions to your O scale structures. Dealer inquiries are welcomed. *Bob Brown.*

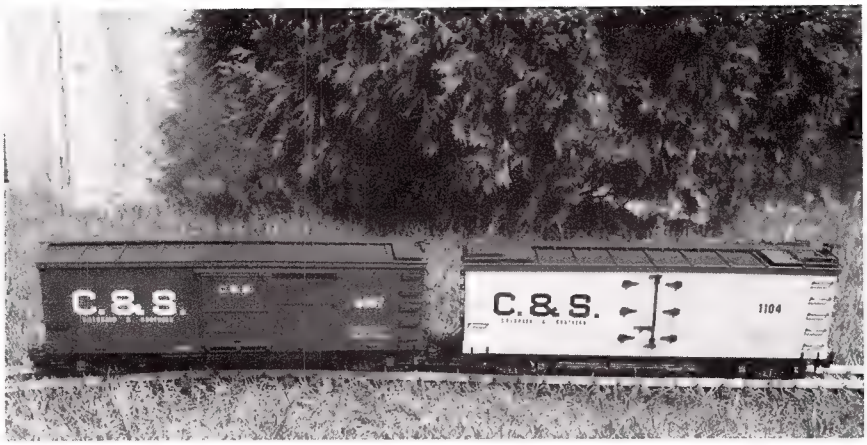
Trains of Texas, 10606 Sagewind, Houston, TX 77089 has three new O scale plaster kits. The first is a pair of hollow, broken-down coke ovens. These sell for $29.95 a pair (Also available in HO for $19.95.) plus $2.50 postage.

The second kit from Trains of Texas is a large brick building with a store front called the Knights of Pythias building. It sells for $89.95. Third is a plaster "wooden" building called (depending on your taste) the Bawdy House or the Boarding House, that sells for $59.95. I assembled this building. It went together very rapidly. All I had to do was clean up the plaster walls, trim the plastic windows and spray them, and paint the walls and glue them together (I did this while the windows were drying). The next day I glued in the windows, built the roof, and installed the flight of Grandt Line stairs up one wall. These are good quality kits, larger than most O scale building kits and they will be very impressive in your town. *Bob Brown.*



P-B-L, P.O. Box 749, Chama, NM 87520. Bill Peter of P-B-L really comes up with some great ideas. His latest is for an MEK set which consists of a little wooden base with a brass PBL emblem, two brushes, and a small bottle of MEK. This unit should gather all of your MEK tools in one place where they can't spill. (Do remember to use MEK in a well-ventilated space and don't breath the fumes.) Bill sells this set for $12.95. You can get the MEK and base, less the name plate and brushes, for $5.95. He also has an electrically conductive lubricant called Neolube at $5.95 a bottle. This stuff will give your connecting rods, and crankshafts a steel-like appearance. You can get a wood base for your Neolube for $2.95. Bill also has a complete line of acrylic paints that can be cleaned up with soap and water. This is the paint he mentions in the instructions of his Sn3 kits and uses on the beautiful models of the PBL traveling Chama display (see November/December 1987 **GAZETTE**). Bill wants me to mention that he has a $3.00 shipping charge on all orders under $100.00. *Bob Brown.*

Depot G Hobbies, O S 371 Florida Lane, Winfield, IL 60190 has a new G scale C&S boxcar and a C&S reefer. Both of these cars were built by Delton Locomotive Works. The boxcar sells for $67.00 and the reefer is $72.00. Depot G also has a covered machinery load for $17.95 plus $2.00 shipping. *Bob Brown.*



In Brief...

The Denver All HO Narrow Gauge Club is now forming. If you are interested contact W. E. Stallan, at 9041 W. 91st Pl., Broomfield, CO 80020...

Builders In Scale, P.O. Box 441432, Aurora, CO 80044 has some HO scale, gummed paper, Victorian shingles in curved, diamond, and octagonal shapes for $3.49 a pack. The shingles are laser-cut and a pack will cover about 5 to 6 square inches...

J&M Distributors, 1760 Monrovia, A-15, Costa Mesa, CA 92627 has re-issued the Railway Engineering Agency HO scale King Truss Bridge kit that includes pre-cut Kappler lumber, Grandt Line nut/bolt/washer castings, and J&M white metal bolted tie plates. The bridge is 8 inches long and sells for $10.95...

Friends of the East Broad Top, 6301 North Canfield Rd., Chicago, IL 60631 are offering a set of oval crossing signs like the ones used on the EBT and the Pennsylvania Railroad. There are 24 signs in a set for $2.75 – choose HO, S, or O scale...

Appalachian Car Shops, P.O. Box 130442, Birmingham, AL 35213 will soon be offering a cast resin Twin Mountain & Potomac 38-foot boxcar in HO scale suitable for HOn3 or HOn30 for $19.95 less trucks and couplers. This company also plans to bring out TM&P gondolas for $29.95 a pair. They plan other kits if there is sufficient demand including a Tionesta Valley caboose and several Sandy River & Rangeley Lakes cars. Write to them for information...

CDS Lettering, Box 2003, Station D, Ottawa, Ontario, K1P 5W3, Canada has Edition 10 of their *Railway Equipment Diagrams* available. This 47 page softcover book is full of drawings of rolling stock and locomotives that show you how to use the fine CDS letters. It sells for $6.00...

Tom Yorke of **Thomas A. Yorke Ent.,** P.O. Box 1330, Fontana, CA 92334 reports that due to his professional commitments to Walt Disney Imagineering, his output of new kits will be slowed down for awhile. Tom will not be able to produce a large volume of each of his new kits until he has completed his contract with Disney. Therefore, starting with Shacks and Shanties, the new Yorke kits will not be available in shops, but direct only...

Herb and Mary Dannamen, 5022 N. 125th. St., Butler, WI 53007 have purchased the **Durango Press** line from Micro Engineering. Write for their list of available products...

Rara Avis, 3494 Clayton Rd., Concord, CA 94519 has purchased the G scale Great Circle Track Co. and the Backwoods Car Shop lines of products. They will get these kits and parts in production soon. Also, if you are in the San Francisco Bay area be sure to drop in and see their new store.

Five Star Models, 37 Woodmason Rd., Boironia Victoria 3155 Australia (611-3) 762-3189 has a new Radio control throttle available. The In-Cab 1100 system is made by Tempest Electronics and is powered by batteries or track power. The battery system is carried in a car or large locomotive, and requires no installation in LGB engines. The track-powered version fits in large locomotives, including many O scale engines. Both throttles use two channel R/C outfits and allow multiple locomotives on the track. The battery system sells for $99.00 and the track-powered system is $169.00. You have to provide the two channel R/C and the batteries. These throttles are available from selected dealers or direct from Five Star Models...

West Lawn Locomotive Works, 2375 West Lawn Ave., Madison, WI 53711 offers back issues and subscriptions to the bi-monthly English garden railway magazine STEAM-LINES that specializes in live steam. $4.50 a copy plus $1.00 postage or $30.00 per year. Good reading...

Colorado Scale Models **Leaverite Mine** is now available in HO and O scale from Caboose Hobbies 500 S. Broadway, Denver, OC 80209, will soon be available in S scale from Scenery Unlimited, 310 Lathrop Ave., River Forest, IL 60305 for $89.95 plus $2.75 postage...

Branchlines, 4 Prospect Park, Exeter, EX4 6NA, England has an extensive line of 4mm narrow gauge kits. For example their Irish prototype, Cloger Valley Railway passenger car kit will run on 12mm gauge track and sells for for 14.95 pounds. The kit includes plastic injection moldings, brass photo engravings and sheet styrene. This is an odd car with a clerestory roof, and it would cause a lot of comment on any railroad...

The Miniature Lumber Shoppe, 812 Main St. Grandview MO 64030 has a catalog of their full line of ¼-inch scale dollhouse miniature items for $2.00. These ¼-inch scale items may be of interest to O gaugers. There are windows, doors, fancy trim for Victorian houses, and the houses themselves – ranging in price from $32.50 to $225.00. The house have Grandt Line details and could be kitbashed for railroad use by closing in their backs which are open for dollhouse use...

Note that West Side Shays #14-15 in the **PSC** ad on page 30 of our last issue are On3, not ½-inch scale as stated...

9TH NATIONAL NARROW GAUGE CONVENTION
SEPT. 20, 21, 22, 23, 1989
DURANGO, COLORADO

"The Narrow Gauge Capitol Of The World"

For Registration Information See Inside Back Cover of the Sept./Oct. '88 GAZETTE
WRITE OR CALL (PLEASE SEND LARGE SASE)
TO: 9TH NATIONAL NARROW GAUGE CONVENTION
P.O. Box 2191 Durango, CO 81302
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SPECIAL TRAINS ON BOTH CUMBRES & TOLTEC SCENIC & DURANGO & SILVERTON RR'S

Oahu Railway and Land Co.

Plans drawn by Jim Dunlop
Compliments of the Oahu Railway and Land Company

STEAM LOCOMOTIVE NO- 85

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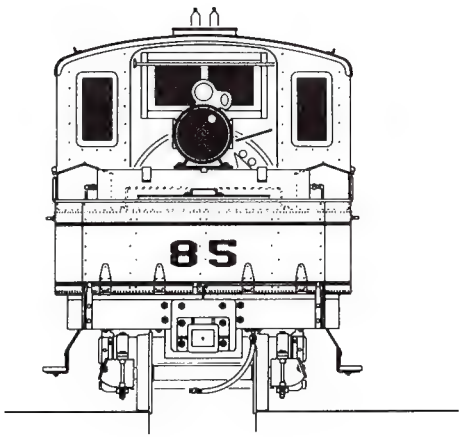

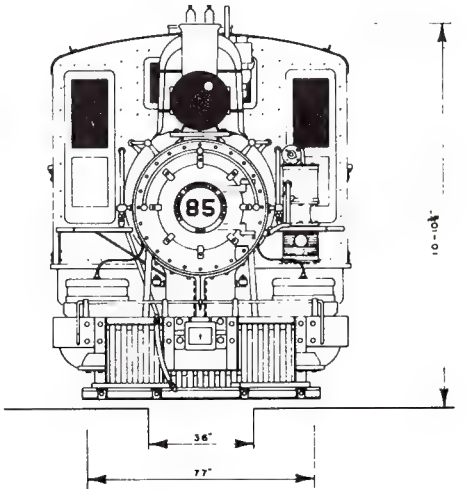

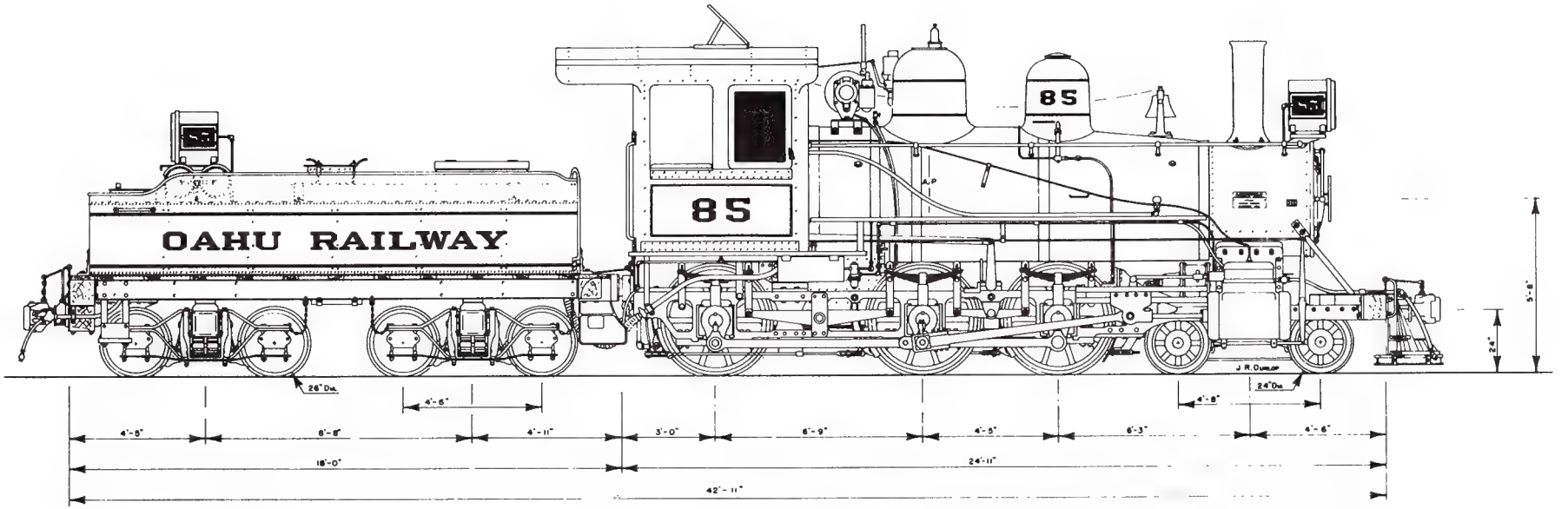

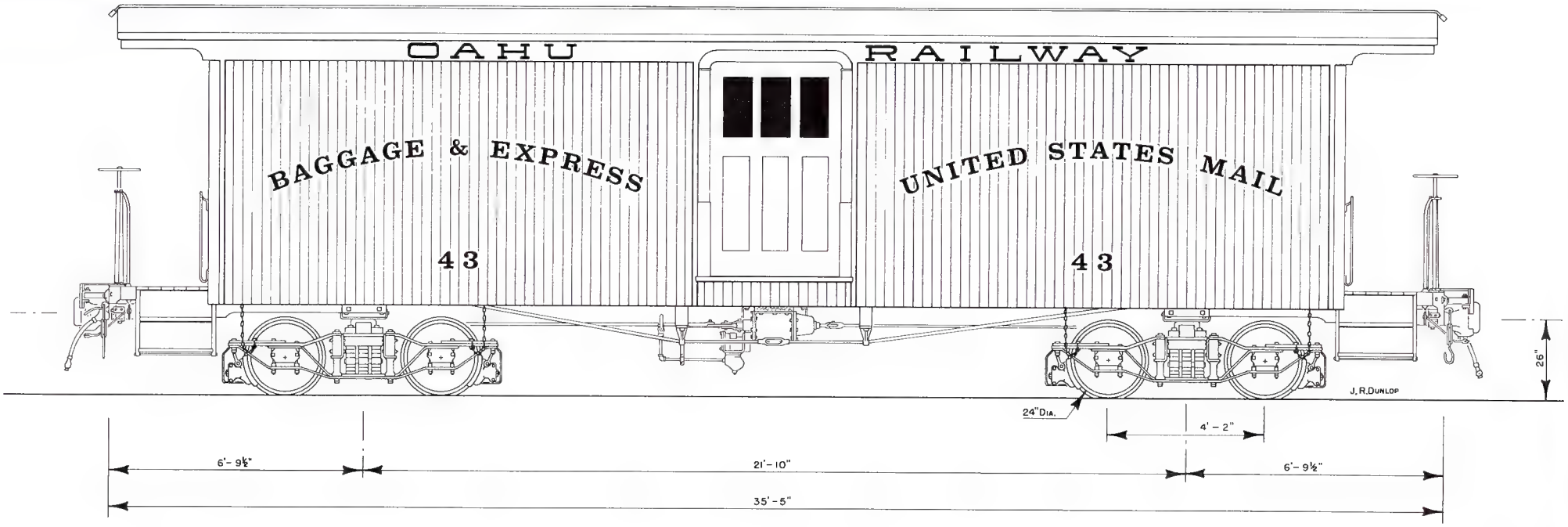

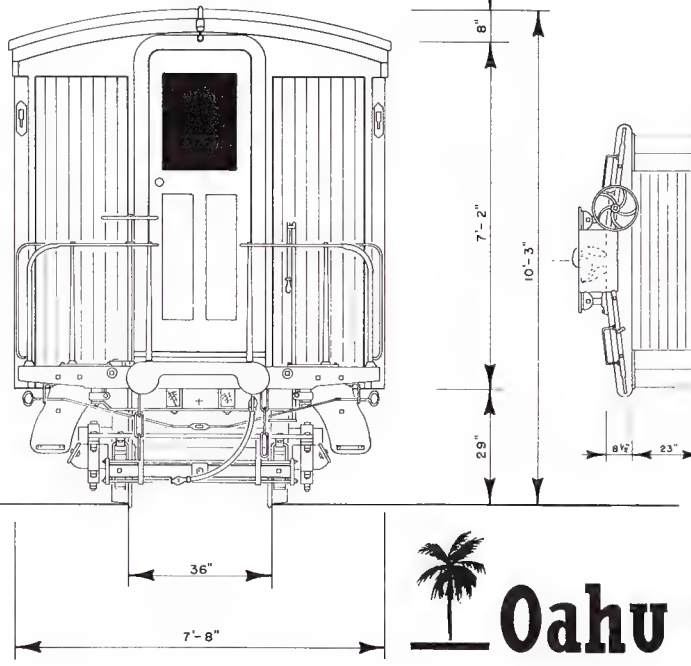

BAGGAGE CAR NO. 43

Plans drawn by Jim Dunlop
Compliments of the Oahu Railway and Land Company

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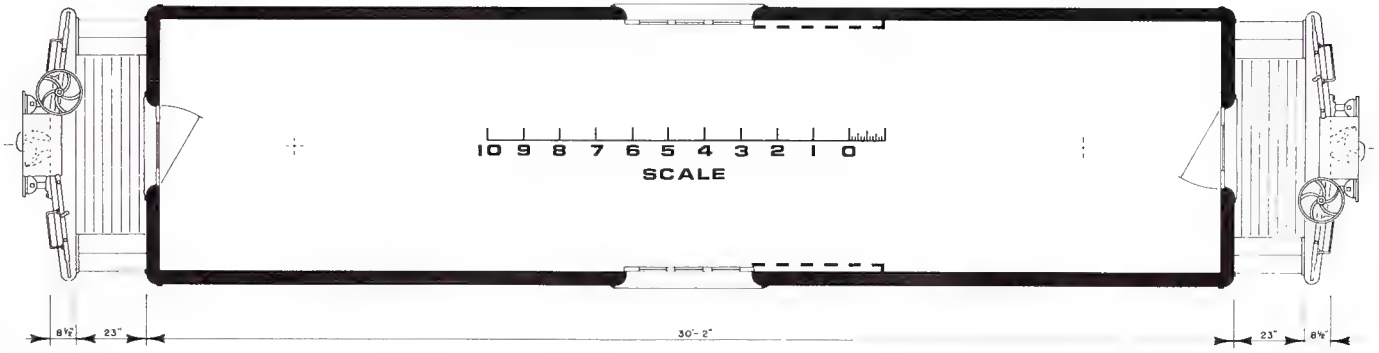


Oahu Railway and Land Co.

SEE OAHU BY RAIL

COAST LINE OAHU SCENIC ROUTE RAILWAY

The Broughton Lumber Company Flume and Railroad

by Duane Ely and Tom Pomeroy

Introduction

When the Broughton Lumber Company closed in the winter of 1986, it was the end not only of a landmark operation from the glory days of logging in the Pacific Northwest, but also the end of the only logging flume still operating in North America. The passing the Broughton Company inspired us to gather the information for this article. Besides consulting the references given, we interviewed Donald W. Stevenson, son of owner, Don M. Stevenson; Cam Thomas, son of the former president and general manager, Don Thomas; and Doyle Vandervanter, Mill Superintendent from 1975 to 1986. We most appreciate their help, and hope that **GAZETTE** readers will bring Broughton alive again in models and dioramas.

The Drano Flume and Lumber Company

The story of the Broughton Lumber Company begins with its predecessor, the Drano Flume and Lumber Company that built the flume used by Broughton for so many years. This flume was made possible by an earth-fill dam built by the Pacific Power & Light Company on Little White Salmon river above Willard, Washington, in 1913. By 1919 George Broughton and his associates Fred E. and W. D. Arnold decided to take advantage of the water from this dam and formed the Drano Flume and Lumber Company with the purpose of building a flume to convey timber to the town of Hood on the Washington state side of the Columbia River near Hood River, Oregon. They bought water rights from the Pacific Power & Light Company, surveyed a route for the flume, and purchased timber rights in the area. They also purchased a site for a planing mill at Hood.

In 1921 the partners constructed a mill at Willard, and through 1921 and 1922 used all the timber it produced to build the flume which was finally completed in early 1923. They had planned to sell the cants (logs slabbed on one or more sides) that they shipped down the flume to a resaw mill tha the Perry Lumber Company of Nebraska planed to build at Hood. This deal fell through when the bottom dropped out of the lumber market just as the flume was completed. The Perry Company directors never built their mill at Hood and soon the Drano Flume and Lumber Company was out of the lumber business.

The Broughton Lumber Company

The Broughton Lumber Company proper began in 1923 when Harold Broughton (son of George Broughton), Thomas Day and A. F. Fraley decided to operate the mill at Willard in spite of the poor lumber market and sell cants to various other companies. They yarded logs directly to the mill pond from the surrounding forest, and paid a fee to the Drano Flume and Lumber Company to transport the cants to Hood on their flume.

Soon they built their own planing mill at Hood and processed cants into finished lumber to be shipped out via the Spokane, Portland and Seattle Railroad (Burlington Northern after February 1970).

In 1924 Thomas Day had to give up lumbering when his leg was amputated due to a persistent infection. The company needed a replacement and Harold Broughton contacted his college fraternity buddy, Don M. Stevenson. Stevenson bought Day's shares and joined the company, continuing with it until his death in 1964.

By 1925 the Broughton Company was cutting 45 million board feet of lumber a year, and the company began construction of a railroad up Pine Creek. In 1927 the Broughton Lumber Company bought out the Drano Flume and Lumber Company so that flume transport fees could not be raised indiscriminately.

By 1930 the Broughton Lumber Company had purchased its first gasoline-powered tractor, a World War I vintage Holt tractor. Nevertheless, in 1931 the railroad was extended again. In 1935 the company bought a new tractor and a 1935 Ford 6-wheel truck and trailer. By 1936 the railroad was running only in the winter and in 1940 operations on the railroad ceased; it was scrapped in 1941.

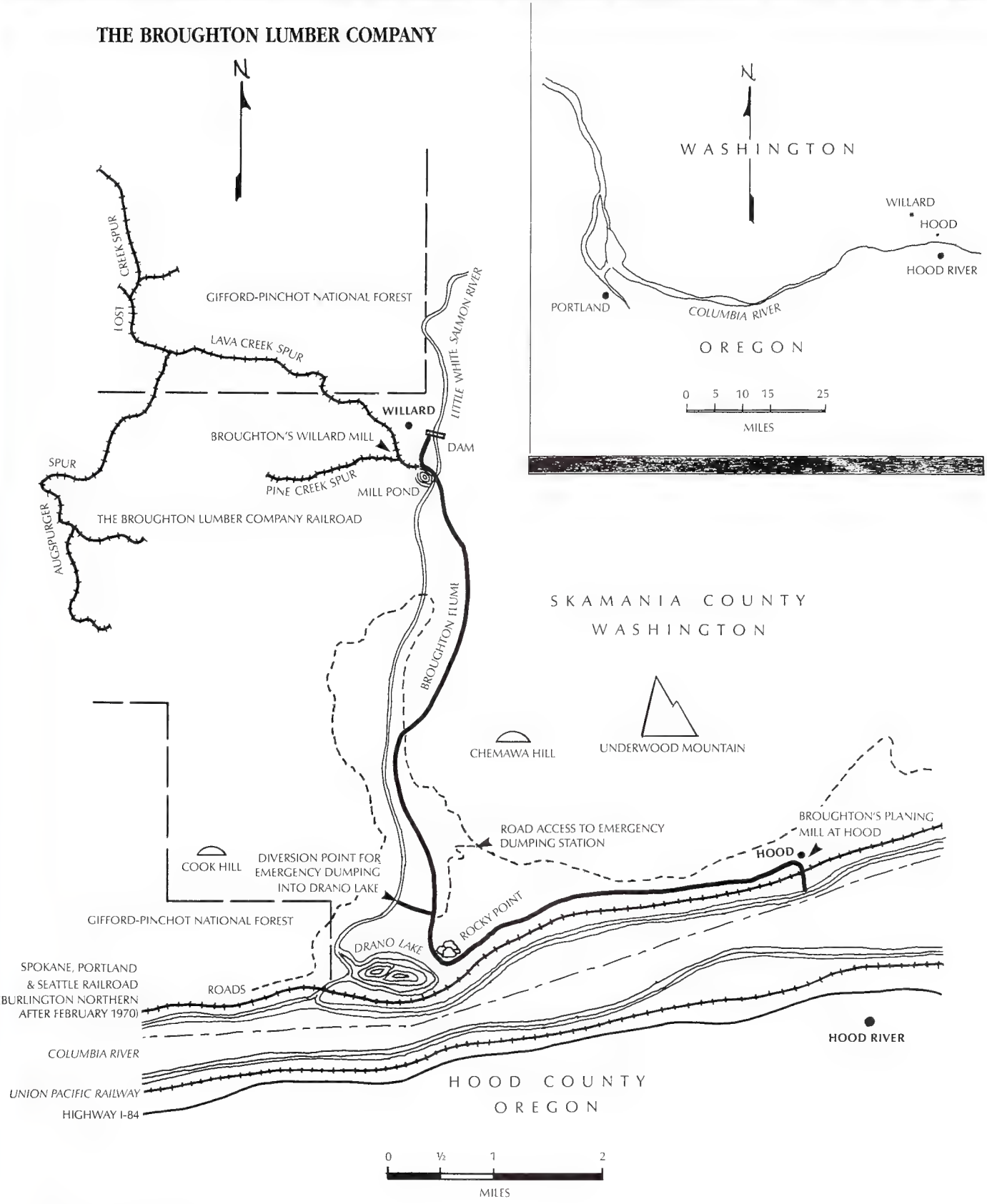
In 1944 A. F. Fraley retired, leaving Harold Broughton and Don M. Stevenson in charge. They faced some new difficulties with the flume which had always had its share of problems. In 1947 it was damaged by rock slides caused by goats. In 1948 customers requested longer lumber than the flume could carry and cants 32 feet and longer were hauled to the planing mill by trucks. In 1963 an ice storm severely damaged the flume in several places. Nevertheless, the flume was repaired and operations continued. The next year saw the death of both Harold Broughton and Don M. Stevenson, but the company continued to operate. In 1969 a fire burned about ½-mile of the flume but the damage was repaired and the flume continued to operate until the end.

The end came on Friday, December 19, 1986. After 63 years of continuous operation the company cut off water to its flume,

The mill near Willard, Washington, that cut the lumber used by the Drano Flume and Lumber Company to to build the flume that became the Broughton Lumber Company Flume. This photo was taken around 1922. *Photo, collection of the Broughton Lumber Company.*

closed its mills, and ended its logging operations. The causes were various. The supply of lumber in the area was diminishing. The mills had been designed to process large old growth logs not small second-growth timber. The flume diverted a huge quantity of water from the river causing complaints from some environmental groups. The Environmental Protection Agency began stricter enforcement of its air pollution standards requiring impossibly expensive modifications of the boilers at the mills. All these conspired to end this interesting operation.

An attempt to preserve part of the Broughton Lumber Company as a historic site failed and the mill and equipment were auctioned off in July 1987. Some company (now privately owned) houses remain, but the sawmill is gone. The flume was also auctioned off and its upper portion is gone.



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Opposite:
THE BROUGHTON LUMBER COMPANY MILL AT WILLARD, WASHINGTON, ON SEPTEMBER 6, 1963
Photo by Western Ways, Inc.

A. FLUME
B. BARKER
C. LOG POND
D. SAWMILL
E. SAW-FILING ROOM
F. GANG SAW MILL
G. CHAIN SAW REPAIR (OLD SHINGLE MILL)
H. CHIPPER BUILDING
I. CHIP STORAGE BIN
J. WIGWAM BURNER
K. BOILER HOUSE
L. PUMP HOUSE
M. OFFICE
N. CATERPILLAR SHOP (OLD ENGINE HOUSE)
O. TRUCK REPAIR SHOP
P. TIRE SHOP
Q. LUBE SHOP
R. EQUIPMENT SHED
S. DERELICT HEISLER #1155
T. COMPANY HOUSES
U. SAW FILERS SHED
V. COMPANY STORE
W. MEETING HALL
X. EQUIPMENT SHED

Opposite:
THE BROUGHTON LUMBER COMPANY'S PLANING MILL AT HOOD, WASHINGTON, ON SEPTEMBER 9, 1964
Photo by Western Ways, Inc.

A. FLUME
B. BURLINGTON NORTHERN RAILROAD FORMERLY SPOKANE, PORTLAND & SEATTLE)
C. RESAW MILL
D. GREEN CHAIN
E. HAND-LOADING RAILROAD DOCK
F. BULL PLANER
G. SECONDARY PLANER BUILDING
H. DRY LUMBER STORAGE
I. DRY ROUGH LUMBER STORAGE
J. GREEN LUMBER STORAGE
K. DRY KILN
L. KILN DRIED LUMBER STORAGE
M. WIGWAM BURNER
N. LUMBER CARRIER REPAIR SHOP
O. EQUIPMENT STORAGE
P. BUNK HOUSES
Q. COMPANY OFFICE
R. LUNCH ROOM
S. CHIP STORAGE BIN
T. FIRE ENGINE HOUSE
U. DRY KILN BOILER HOUSE
V. FIRE WATER STORAGE TANKS
W. DYNAMITE SHACK
X. FLUME OUTFLOW

The lower accessible portions of the flume and a large trestle were dynamited to avoid liablilty problems.

The Broughton Flume

The Broughton Flume was unique only in its longevity. From 1870 to 1930, flumes were common on western logging operations. Hundreds of them were used in Washington, Oregon, California, Idaho, and British Columbia. Most of these flumes transported cut lumber or shingle bolts (chunks of lumber destined to be split into shakes or shingles) but a few carried logs or cants. (The shortest flume in the Pacific Northwest was only 600 feet long and carried logs between Redondo Lagoon and a salt water bay in British Columbia. The longest was 59 miles long and was located in the Sierra foothills east of Madera, California.)

After World War I, with improved motor transport, depletion of timber, and unreliable water sources, flumes in the Northwest gradually began to close. By 1953 only four were left, two in Idaho, one in British Columbia, and the Broughton Lumber Company Flume in Washington state.

The Broughton Flume outlived all the others; it was only 9 miles long but it was as

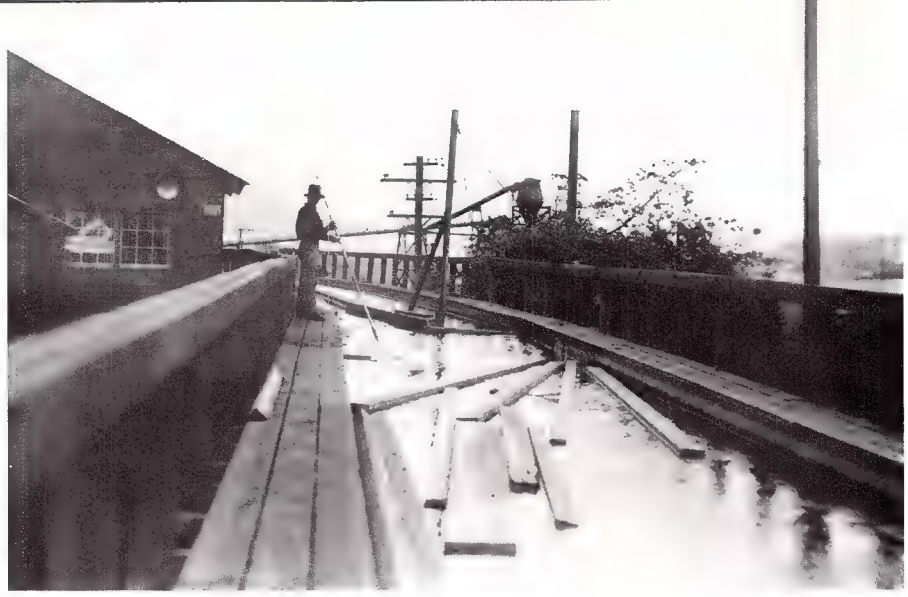
Around 1922, the flume built by the Drano Flume and Lumber company traverses the terrain at the top of this photo. The lower flume is part of one owned and abandoned by the Oregon Lumber Company. The Broughton Company did not actually own the flume built by the Drano Company until 1927. *Photo, collection of the Broughton Lumber Company.*

In 1922, Mrs. Fred Arnold, wife of one of the owners of the Drano Flume and Lumber Company, enjoys the view of the Columbia River Gorge below the flume built by her husband's company. The Broughton Lumber Company didn't buy this flume from the Drano company until 1927. *Photo, collection of the Broughton Lumber Company.*

spectacular as any of them. Its construction was typical of many of the others. Each "V" shaped flume section had a trough built of 2-inch-thick tongue and groove Douglas fir boards 12 to 14 inches wide and and 16 feet long (Fig. 1). The rest of the flume parts were made from cedar because it withstands rot better than Douglas fir. The trough was a little over 2 feet deep and around 4¼ feet across at the top, allowing the water to run at about 2 feet deep. There was a little "V" shaped piece of wood in the bottom of the trough that allowed any sinkers (underwater pieces of lumber) to slide along without jamming or stopping. The flume rested on a 4- x 6-inch bracket supported by three 4- x 6-inch by 18-foot stringers. The stringers rested on a 6- x 6-inch cap, supported on 6- x 6-inch legs. This 16-foot-long group of timbers formed a bent. The flume, was lined with metal at several of the sharpest curves where it took a real bend on a steep grade.

The Broughton flume started at the former Pacific Power & Light dam on the Little White Salmon River ¼-mile north of Willard, where 30 cubic feet per second of water were released into it by a sliding gate. It was a 9-mile trip to Hood, one thousand feet below on the Columbia River, and the water flowed around 9 miles per hour taking about 55 minutes for the trip. The flume could transport 125,000 to 150,000 board feet of lumber per day or 40 to 50 million board feet per year.

Water ran in the flume all the time, but the mills shut down at night. In the morning the mill at Willard started first; at 7:00 a.m. it in order to send enough rough sawn and trimmed logs down the flume to supply the planing mill at Hood when it opened at 8:00 a.m. The Willard Mill used a band saw to rough-saw large logs and a gang saw (several saws mounted in a sash that oscillated vertically) to rough-saw small ones. It had no jack slip, instead a portion of the mill pond was actually inside the mill and the logs were lifted by a chain and cable setup onto the log deck.



The Broughton Lumber Company Flume entering the planing mill at Hood. Water from the flume eventually drained into the Columbia River via a concrete culvert under the railroad and highway. *Photo, collection of the Broughton Lumber Company.*

The Broughton Lumber Company Flume clings to Rocky Point on its way down to the planing mill at Hood. The Columbia River winds down the gorge to the right. *Photo, collection of Cam Thomas.*

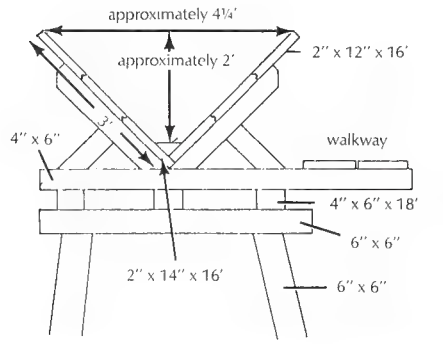


Figure 1. A Cross section of the Broughton Lumber Company Flume.

The lower part of the Broughton Flume clung to the steep slopes of the Columbia River Gorge and ran over trestles as high as 80 feet. This section was protected by a warning system consisting of a six volt electrical line powered by batteries that ran along the timbers supporting the flume. Anything that broke the flume also broke the wire and triggered a bell at Hood. Then a complicated automatic mechanism involving a solenoid and a Ford starter motor diverted the water and logs into Drano Lake. This prevented water cascading out of the break in the flume from eroding the mountainside. The warning bell also sounded in the homes of the president of the company and the mill superintendent. Trouble along the flume was a frequent occurence. Besides general breaks from wear and tear, there were rockslides, lumber jams, and sometimes even ice jams. The mill at Willard had to stop operating when the flume was closed because there was no way to transport the cants and there was no place to stockpile them. (Even in the last days of operation, trucks were used between Willard and Hood only for transporting cants over 32 feet in length.)

A 12-inch walkway ran the entire nine miles of the flume. This walkway was patrolled every Friday afternoon so any

Construction of the highest trestle on the Broughton Lumber Company Flume. The bents were between 80 and 100 feet tall. This photo was taken during a rebuilding of the flume and the trestle is actually a new one being built in a slightly different location than the one being replaced. *Photo, collection of Cam Thomas.*

damage could be repaired over the weekend. Pre-cut and in some cases pre-nailed, parts for the flume were stored at the halfway point on the flume not far from Drano Lake. Repair parts could be floated to downhill damaged sites by diverting a small quantity of the water pouring into the lake back into the flume.

The Broughton Logging Railroad

Between 1923 and 1925, logs were yarded directly into the pond at the Willard Mill by various means including a 11-x 13-inch Willamette yarding engine. When the distance became too great for these methods, the company built a railroad. The standard gauge Broughton Company railroad began in 1925 with a line up Pine Creek. A 22-ton wood-fueled Heisler (construction #1091) was purchased. Besides its Heisler, the railroad had six sets of disconnected Russell logging trucks and a gasoline speeder (built by owner and superintendent, Don M. Stevenson using a Waterloo Boy tractor engine). This speeder could haul 30 loggers into the woods at a time. Because of steep grades, sharp curves, and long logs, Broughton logging trains usually consisted of only two or three loaded sets of disconnects.

A typical train crew consisted of two men – a brakeman/fireman and an engineer. The brakeman/fireman acted as fireman going out to the woods. At the log-loading site he stoked up the fire and then acted as brakeman on the downhill run to the mill. Little steam was needed going downhill and the engineer could handle the fireman's task.

The timber along the first branch up Pine Creek lasted about 2 years – in 1927 the railroad was extended 3 to 4 miles up Lava Creek on 40-50 lb. rail with a maximum

The Broughton Lumber Company Mill near Willard, Washington, around 1928. Heisler #1155 sits in front of the engine shed on the far left. The main sawmill is on the right of the engine shed, and the mill with the gang saw is on the right of that. On the very far right is a shingle mill used until the supply of cedar ran out. *Photo, collection of the Broughton Lumber Company.*

Heisler #1091 (Broughton Lumber Company's first Heisler) doing some chores around the mill at Willard, Washington. *Photo, collection of Cam Thomas.*

The Broughton Lumber Company's second Heisler (#1155) with the mill crew. A homemade crew car is coupled to the engine. *Photo, collection of the Broughton Lumber Company.*

grade of 7 percent. Lava Creek timber lasted 3 to 4 years before a branch was built toward Augspurger Mountain. This branch was used until the end of operations in 1940. The total length of the railroad (including spurs) was never more than 8 or 9 miles.

In 1927 The company acquired a second Heisler (construction #1155) to replace the first one (it ran away at the mill pond and was wrecked). The second Broughton Heisler was a 42-ton engine built in 1909. (Some rosters list this engine as a 37-ton locomotive, but Heisler was in the process of changing their classification system when she was built, and the locomotive was upgraded to a 42-ton locomotive at the Heisler factory before delivery. She was hauled up to Willard in pieces with Mack "Bulldog" trucks working in tandem. She was then set on cribbing at Willard and shifted onto her trucks and reassembled. After the railroad closed in 1941, this second Heisler remained on the Broughton property until 1970 when it was purchased by Jack Rogers who took it to his Golden Age of Logging Museum in Ashford, Washington, where it now resides, partially restored. No one seems to knows what happened to the speeder.

This kind of railroad-mill-flume-mill-railroad operation would make a great logging scene. A flume itself would be a great addition to any logging layout. We hope some **GAZETTE** readers will give it a try.

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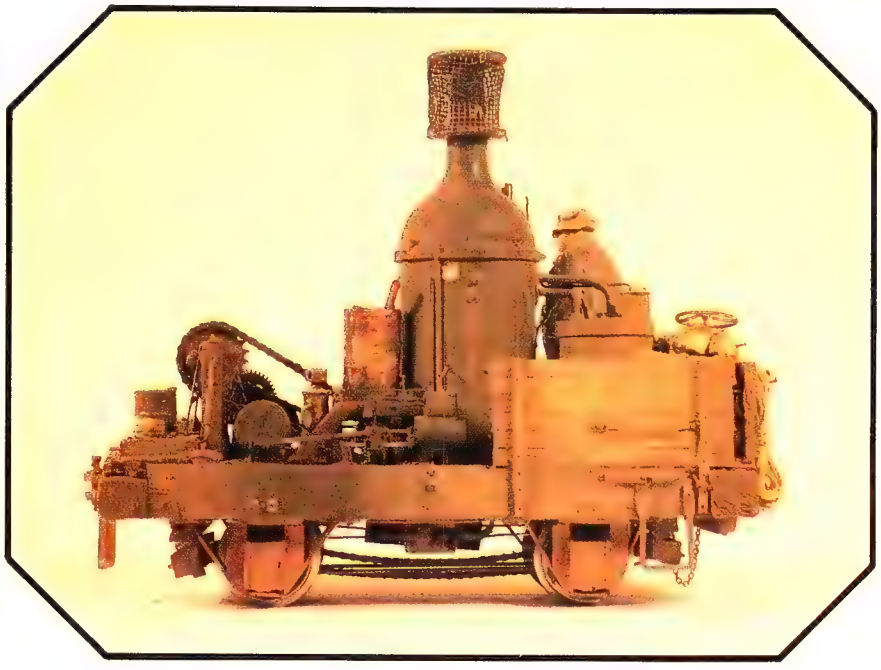
Stillwater Mills #1



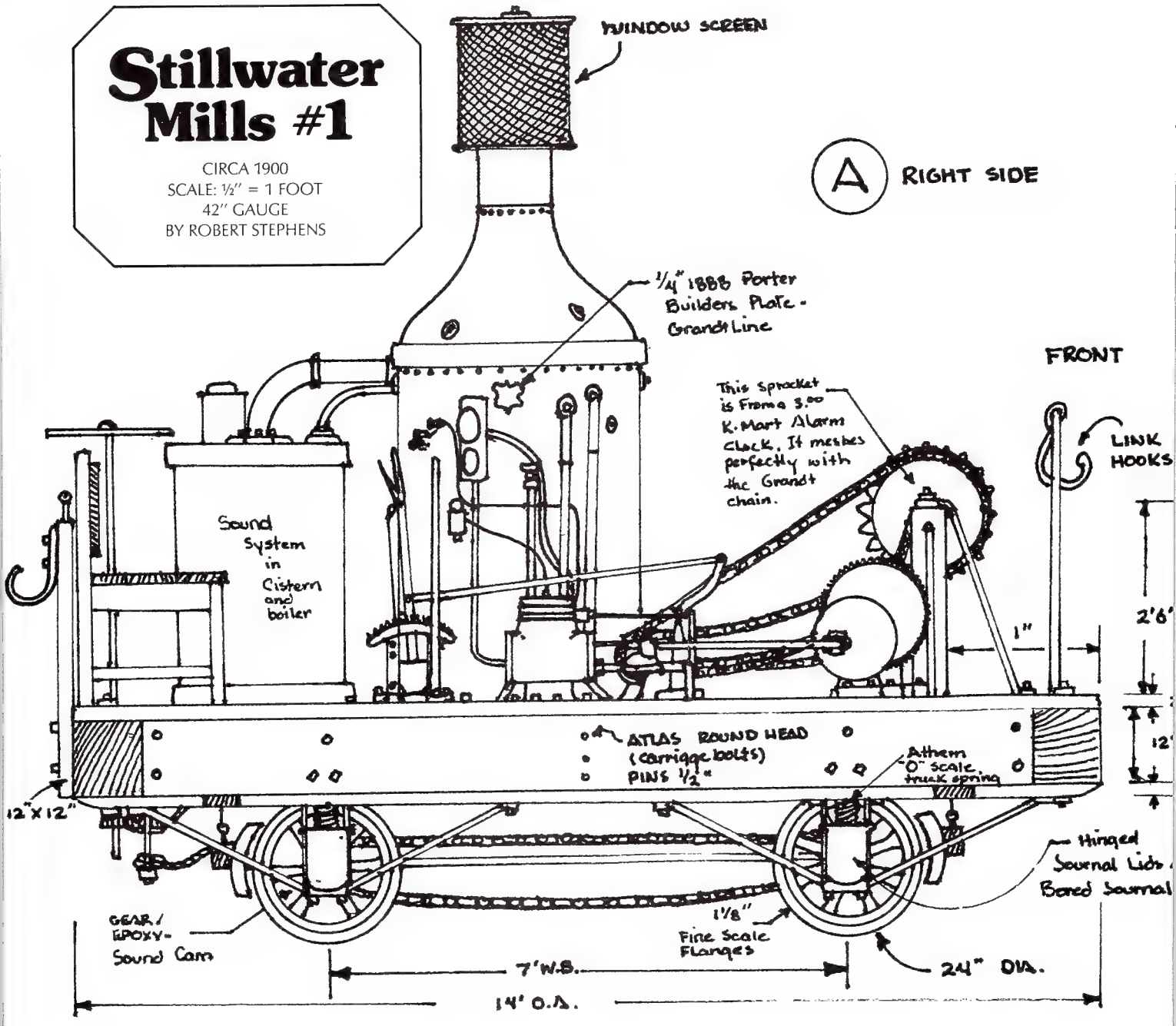
by Robert Stephens
Photos by the author

After building models in On3 for several years I decided to try my hand at some ½-inch scale, 3-foot gauge models and build a really run-down little logging line. My Stillwater Mills line is based on a real company that ran a railroad along the upper Flathead Valley of Montana from 1902 to 1922. It is a typical little logging outfit and I am really enjoying working in ½-inch scale and scratch-building most of my models.

The first locomotive I built for my new railroad is the homemade affair shown in the photos and drawings. This simple, 4-wheeled, vertical-boilered locomotive is actually quite an engine and was a real pleasure to build. I powered Stillwater Mills #1 it with a 2020 micro motor with a 59:1 gearhead, the kind of motor used in On3 Grandt Line Porter kits, and Precision Scale Shays. Drawing B1 shows

Stillwater Mills #1

CIRCA 1900
SCALE: ½" = 1 FOOT
42" GAUGE
BY ROBERT STEPHENS



how the engine is driven – just like the prototype would have been – with five sets of chains and sprocket wheels. I used Grandt Line link-belt-chains and sprocket wheels and they worked perfectly.

Drawing B2 shows the motor and drive gearing. I hid the motor in the boiler. It is attached by an 118:1 bevel gear box to a shaft that runs at right angles to the motor to another 118:1 bevel gear box hidden in a grease bucket. The total gear reduction for the drive is 236:1, allowing the engine to run at a top speed of 8 mph over very rough track.

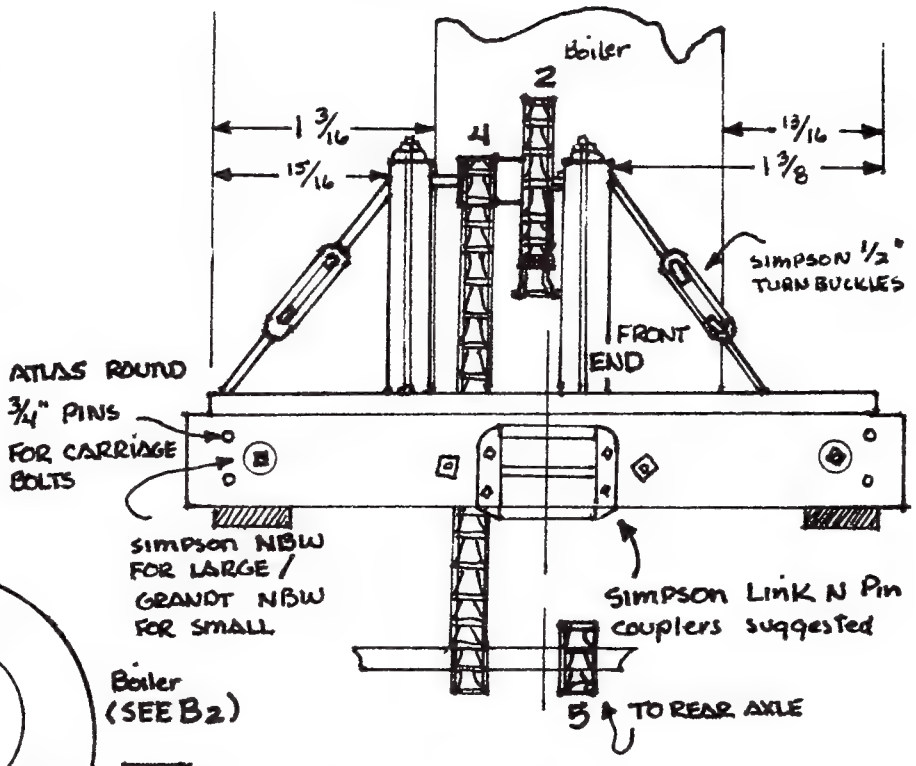
The chain drives are attached to the cross shaft that runs through the grease bucket. Drawing B1 shows how chain 1 drives another cross shaft. This shaft drives the flywheels and two cylinders. Chain 2 drives yet another cross shaft that has chain 4 on it which goes down to one of the axles. Chain 5 connects the two axles together. I rigged chain 3 so it drives a little auxiliary flywheel reduction shaft that looks great flying around as the engine goes down the Stillwater rails.

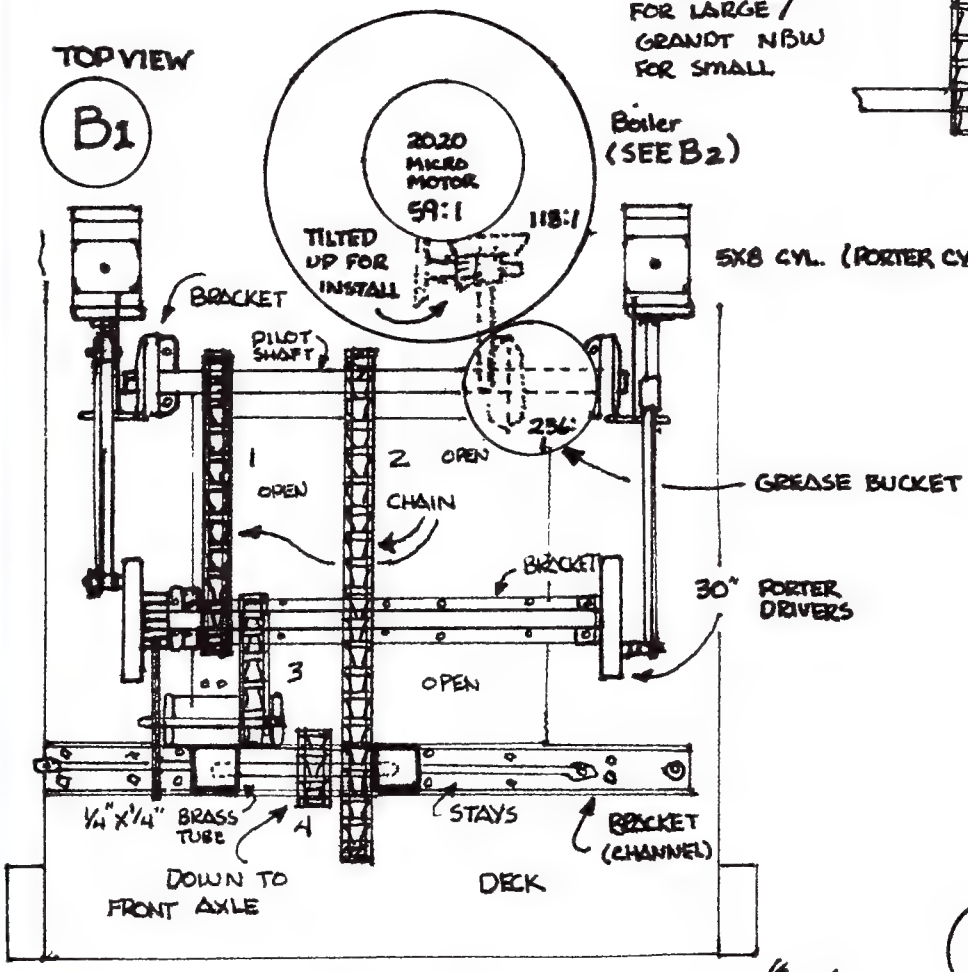
The wheels are 24-inch, spoked pilot truck wheels from LGB with their flanges turned down. The journals came from an LGB archbar truck with scratch-built pedestals. The brakes work and will actually stop the engine on a downgrade. The cylinders are from an On3 Grandt Line Porter kit as are all the rods and valve gear parts. The two big gears are from an alarm clock. The flywheels are Grandt Line Porter drivers with the flanges turned down and the driver centers filled in. The throttle, reversing gear, and other backhead details were built-up. The firebox door opens and there is a grate, shaker plate, crown sheet, and a roaring fire (two bright light bulbs painted amber yellow and bright orange), so you can "kick" open the door and see the fire burning in the firebox and the boiler "makin' steam."

All of my ½-inch scale equipment uses Simpson's link and pin couplers with large homemade links. The details, such as nut/bolt/washer castings, are also from Simpson. The figure is a modified LGB man with clothes, hat, and gloves made of toilet tissue and white

Stillwater Mills #1

CIRCA 1900
SCALE: ½" = 1 FOOT
42" GAUGE
BY ROBERT STEPHENS





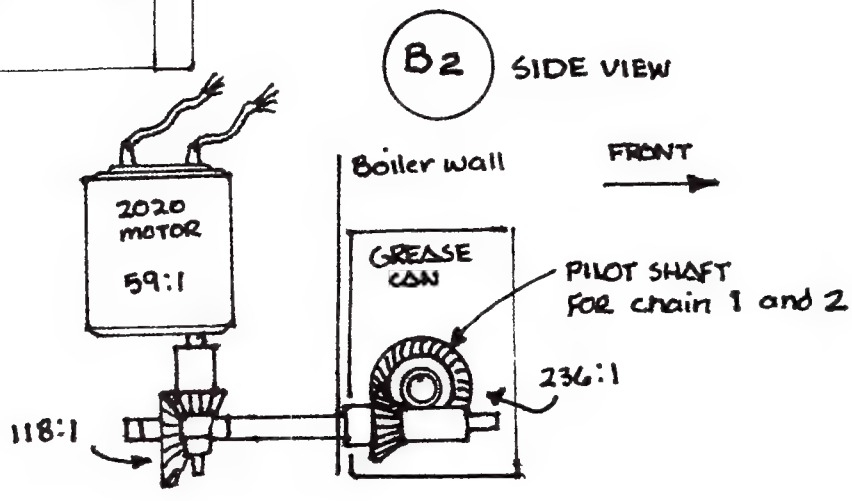
1 Chain carries power up to Flywheel / Cyl. shaft

2 chain carries power up to final drive shaft

3 chain carries power to gear / flywheel reduction shaft

4 chain carries power down to front axle

5 chain carries power from front axle to rear axle

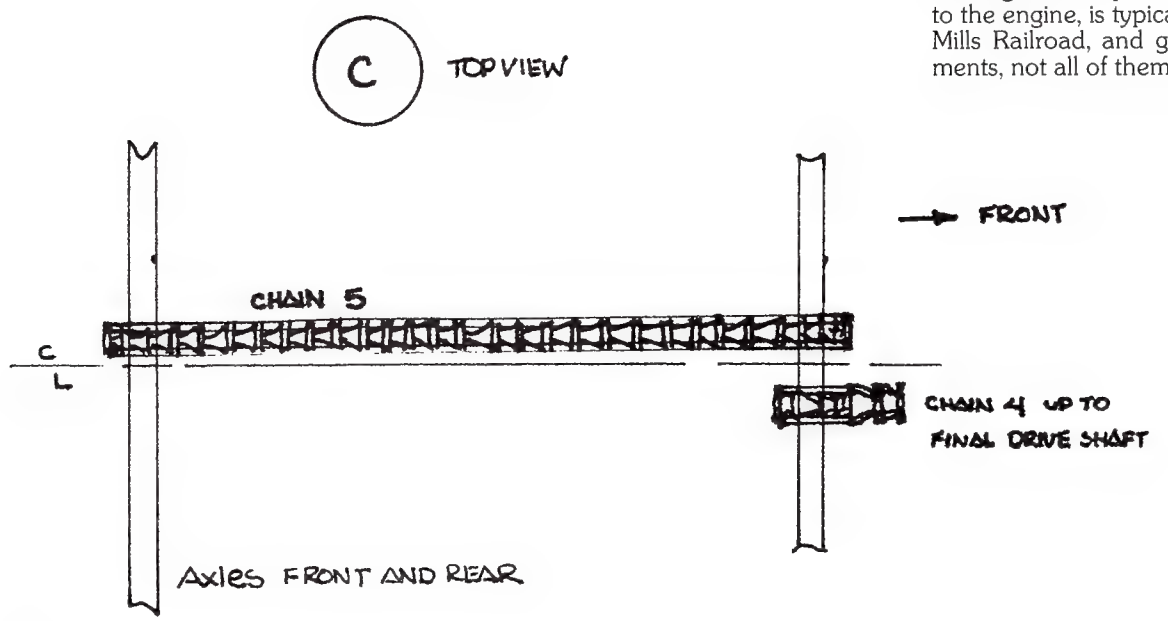


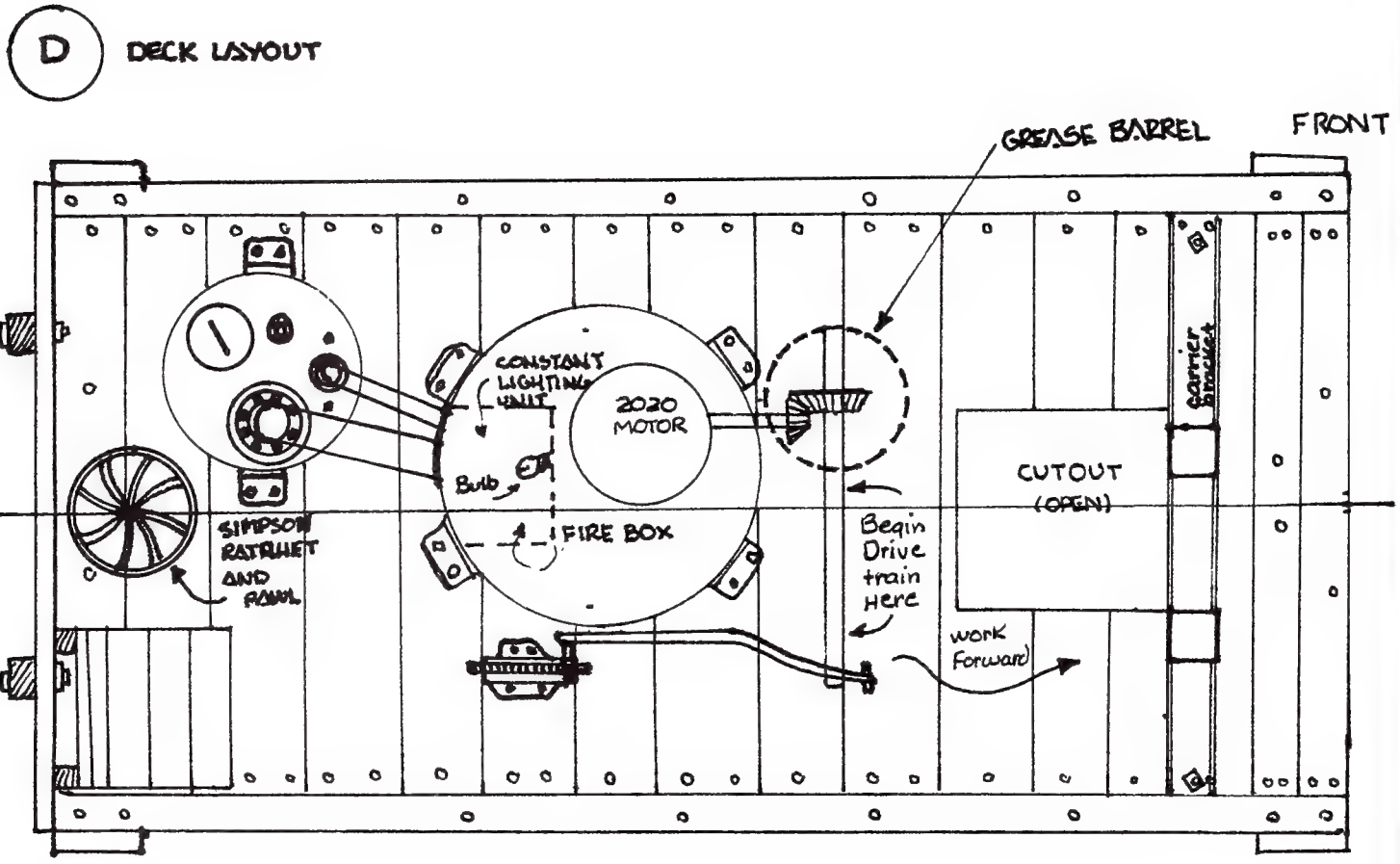
Stillwater Mills #1

CIRCA 1900
SCALE: ½" = 1 FOOT
42" GAUGE
BY ROBERT STEPHENS

glue. (I use anything that will work in building my models. It adds to the fun.) The tapered part of the boiler is the expandable cap from a tube of grease. The little water tank is a 1-inch pipe nipple. The sound cam, for the PFM sound unit, is a Shay gear cut in half with the teeth filled in with resin.

The engineer (with the toilet paper clothes) is called Lard-Ass Jack and is virtually useless as a worker, but he is the only one who will get close enough to Stillwater Mills #1 to run her. More energetic workers have a great fear that she might blow up. He adds a nice touch to the engine, is typical of the Stillwater Mills Railroad, and gets a lot of comments, not all of them complimentary.





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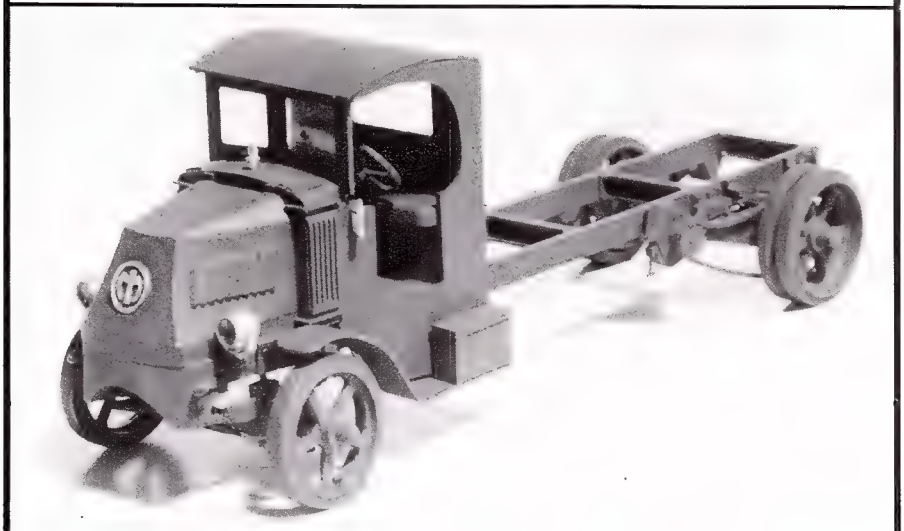

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THE THOMAS SLATE QUARRY

by Dave Rowe
Photos by the author except as noted

This is the third of three articles describing my 4mm scale working dioramas depicting typical Welsh scenes. I started with my Welsh coastal village (July/August issue), moved inland to Henblas Farm and its surrounding valley (September/October), and in this issue I move even further inland to the Thomas Slate Quarry.

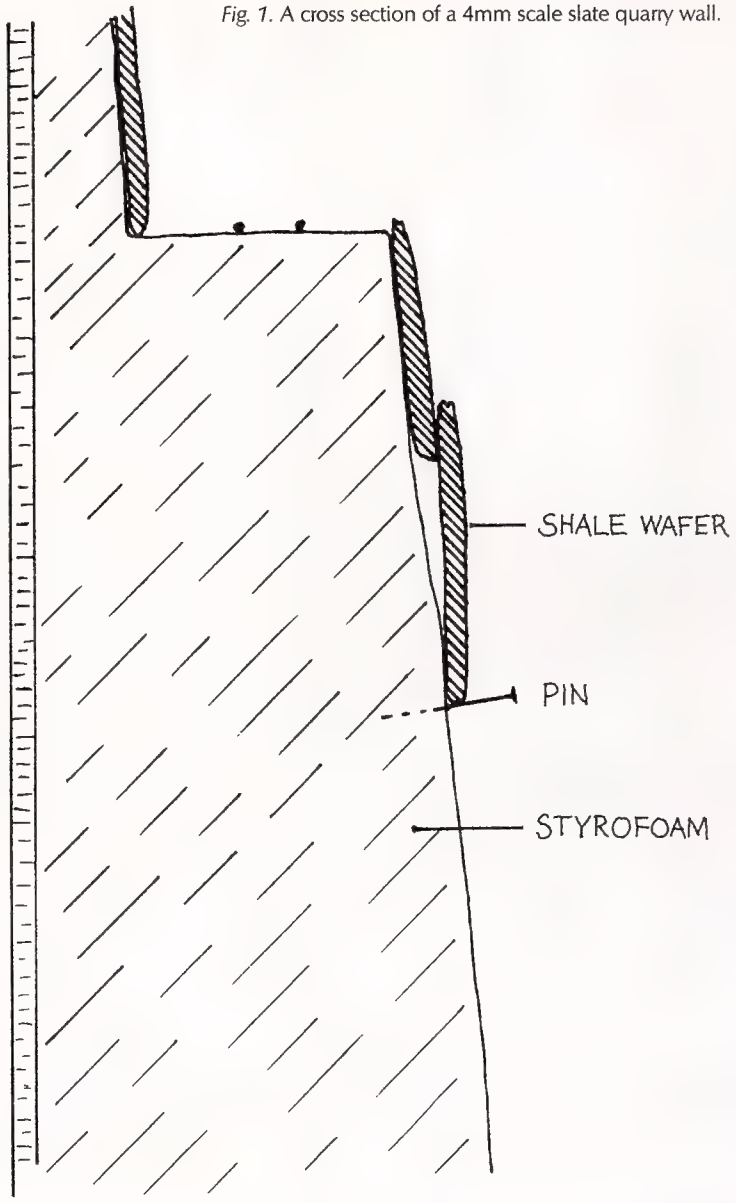
Producing realistic model rocks for the walls of my slate quarry was a worry for me because I did not know about the American method of casting rock faces in plaster from molds taken from real rocks. However, I accidentally found a way to model my quarry walls while I was vacationing in the west of England. I sat down on the beach and leaned idly against the base of a cliff, knocking a piece off it. Picking up the bit of rock, I found that I had a ready-formed scale model of slate-bearing rock. The soft shale that I had leaned on split readily into wafers and had the perfect texture and coloration for my diorama. Lady Luck had smiled on me because 30 yards on either side of the spot where I had sat down, the shale changed and was either too soft or too hard to use.

Back home with my collection of "slate" (pieces of the soft shale), I decided to make my quarry walls of Styrofoam faced with the rock thus keeping my diorama light enough to be taken to exhibitions. I used a long-bladed knife to split the lumps of shale into ⅛-inch-thick wafers. Then they were laid out like pieces of a jigsaw puzzle and glued to the styrofoam, starting at the top and working down as shown in Fig.1. Pins were used to hold the wafers in place and were removed when the glue had dried. The areas where the wafers did not fit perfectly were filled in with plaster and painted to blend in. Any broken or shattered pieces of shale were saved and broken up in a bag to be used for waste heaps and ground cover in the quarry.

The Thomas Slate Quarry is only 4 feet 6 inches long by 1 foot 6 inches deep, but I packed a lot of action into this space (Fig. 2). A locomotive (A) on the bottom loop, circles around its loop, stopping at two points, while another two engines run back and forth on the upper and middle levels (B

Title photo: There is a lot of activity in the Thomas Slate Quarry. An 0-4-0ST engine named PRINCE trundles by on the top level with a load of waste. The vertical-boilered VICTORIA is hauling cut slate on the bottom level. The electric locomotive on the middle level is named ECLIPSE and started life in the 1890s as a steam engine. It is powered by two overhead electric wires.

Fig. 1. A cross section of a 4mm scale slate quarry wall.



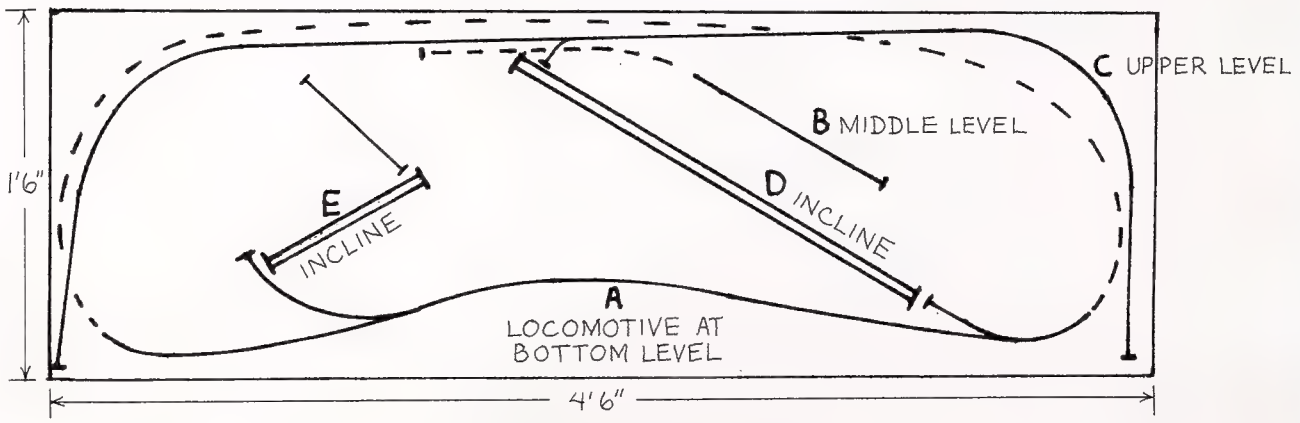
and C). The two inclines (D and E) run cars up and down. With all this going on, the diorama is quite busy.

Some Welsh slate quarries had as many as 18 levels, and often each level had its own unique railway. Inclines used counterweights to raise and lower cars between levels. The counterweight was a tank such as the one in the photos. Positioned at the top of the incline, it was filled with water; when it was full, a brake on a winding drum was released and the weight of the tank caused it to descend, pulling a loaded platform up the adjacent track. When the platform reached the top of the incline, the turntable on the platform was rotated so that that the car could be pushed onto the rails of the next level or if carrying slag, unloaded, and returned to the platform, empty. The water was then drained out of the tank and the greater weight of the platform caused the platform to descend and the tank to ascend.

I wanted my diorama to work automatically so I could spend my time at exhibitions demonstrating modeling techniques and swapping ideas. So I devised an automatic control system using a series of motors, relays, and other electrical and mechanical parts. These may or not be available in countries other than England, so please, take these directions as guidelines only on how to control your models. You will have to improvise and fiddle with the electrical and mechanical components you can get.

The heart of my system for controlling the three locomotives and two inclines in my quarry is a "uniselector," really an electromagnetically-operated, multi-pole, multi-way switch. These units have between four and ten banks of contacts and can be set to rotate a wiper through its series of contacts, energizing each contact in sequence. They are available, in England, in surplus stores for the equivalent of about $1.00 U.S. Since many of you may not be able to obtain one of these neat machines, I got **GAZETTE** editor, Bob Brown, to ask

Fig. 2. A track plan of the Thomas Slate quarry diorama.



American "Sound Wizard," Gordon North to explain how to replace a uniselector with the more readily available stepping relay. His comments can be found in the side-bar. Fig. 3 shows a simplified stepper arrangement with one bank of four contacts controlling a single reversing relay. The relay is non-energized in positions one and three and energized in positions two and four. (Note that my uniselector actually has 50 contacts not just four.) My timer motor is from an old washing machine and rotates at 2 rpm.

Many electronic suppliers and surplus outlets have low speed timer motors available (those made by Hurst go down to ⅓ rpm). A lever on my timer motor shaft closes a normally open switch to energize the coil of the stepper and advance its wiper to the next position. My diorama uses five banks of my uniselector; one each for the two inclines, one each for the two dead-end tracks, and one for the center oval.

Figure 4 shows the wiring for one of my inclines. The switches can be any normally closed switch, homemade or commercial, that can be equipped with a proper contact arm. I used American switches labeled "Cherry E 53" that need only a few grams of weight to activate them when they are fitted with a wire extension. The DPDT relay that reverses the current is operated from the stepper. Fig. 5 shows the circuit with the relay energized, allowing the current flow through the motor in the direction to lower the car toward the lower switch (S1). When the car hits the switch and opens it, diode D1 blocks the current flow and stops the motion. The car will remain in this position until the stepper energizes the relay coil and reverses the polarity. Current will then flow through diode D1 until the switch (S1) again closes as the car moves away from it. The current now flows through the motor, in the opposite direction, pulling the car up until it hits the upper switch (S2) and diode D2 blocks the current.

Figure 5 also shows how the dead-end track operates. The train moves in the direction of the arrow with the relay non-energized. When the locomotive crosses the gap into the protected section of track beyond diode D1, the diode will block the current flow and stop the locomotive. When the reversing relay is energized by the stepper, the diode becomes forward-biased, current flows, and the locomotive will run out of the protected section in the direction opposite to that of its arrival until stopped by diode D2 in the protected section at the opposite end of the dead-end track.

The oval of track on the lowest section ("A" in Figure 2) has two sections controlled by the stepper, one in the tunnel and one at the front of the diorama. A relay is not needed here because the train does not reverse direction. Track power for the controlled sections is provided directly from a stepper bank. When the train reaches a controlled section and the stepper is on

A Simple Electronic Sequencer

by Gordon North

The author's "uniselector" can be replaced with a simple digital electronic sequencer whose concept is shown in the drawing below. The circuit is based on a CD 4017 Decade Counter/Divider that can be obtained in the U.S.A. for less than $1.00. Each output, 0 through 9, sequences with the clock input. The clock function shown uses a timing motor and cam similiar to the author's. Each time the cam opens the switch S1 and it closes, the output will sequence from n to n+1. In other words, the output sequences whenever the clock goes positive. The diagram shows a two-reversing relay system with two different patterns to illustrate the use of isolating diodes. Multiple outputs can be connected to a single relay circuit, or multiple relay circuits can be connected to the same output using multiple diodes. As shown in the diagram, RY1 is energized by outputs 0 through 4 and non-energized by outputs 5 through 9. RY2 is energized by outputs 2 through 6 and non-energized by outputs 7 through 0.

Many other combinations can be derived from this basic circuit. Additional CD 4017's can be cascaded to increase the number of positions within a cycle. The clock may be electronic rather than mechanical, you can use low frequency oscillators that come in a variety of configurations. The point is that there are a variety of different methods for providing automatic control on this type of animated diorama or scene. You can choose the most practical method on the basis of cost, availability of components, and your own electronic and mechanical skills and preferences.

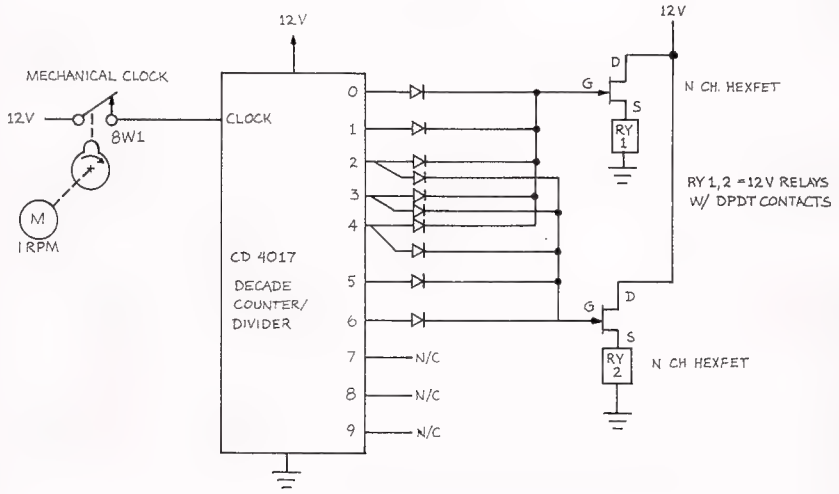
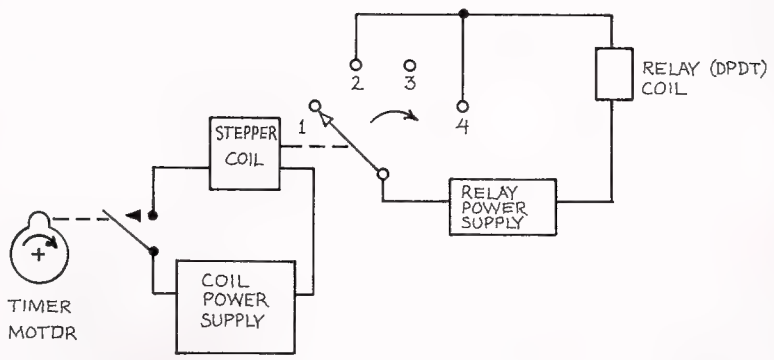


Fig 3. Simplified Stepper Operation



You can see the two water-counterweighted inclines and the trains on all three levels of the Thomas Slate Quarry in this photo. Some Welsh quarries had 18 levels with inclines connecting them. Each level often had its own rail system.

The Welsh inclines worked by having an operator at the top who filled the big tank with water. He then released a brake on his winding drum, allowing the tub to descend, pulling the platform on the other track up. Cars were placed on platforms for transfer from one level of the quarry to another.

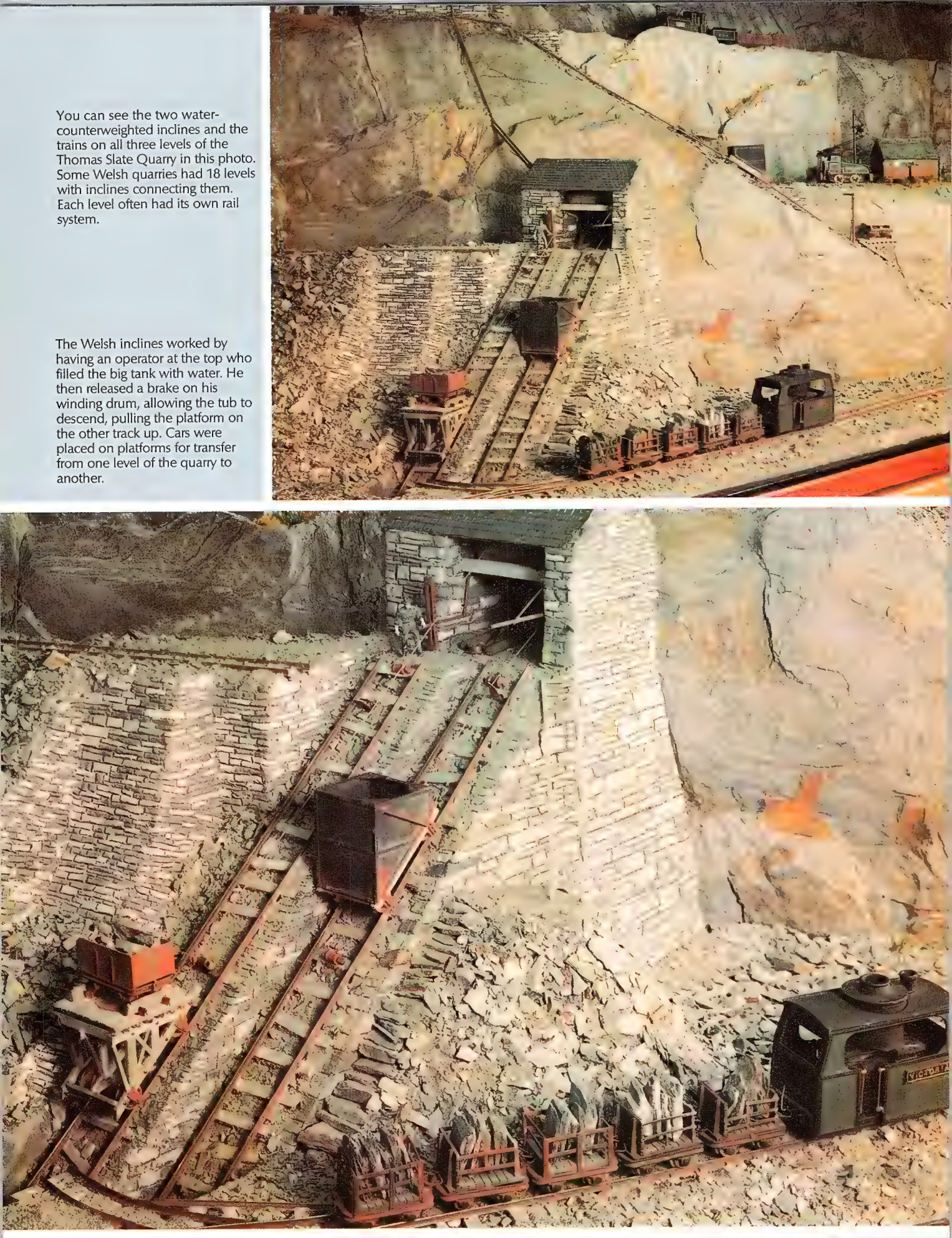
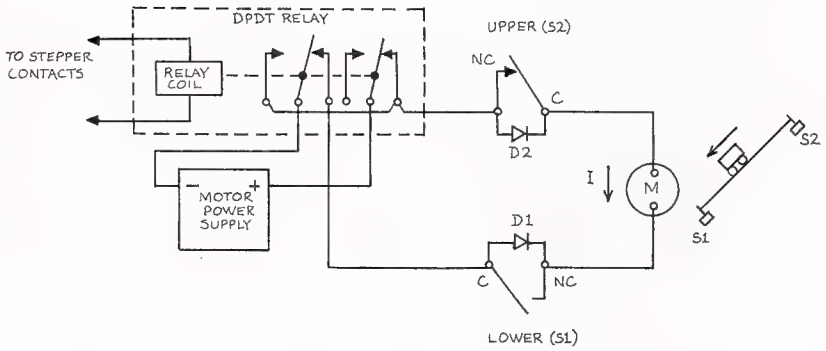


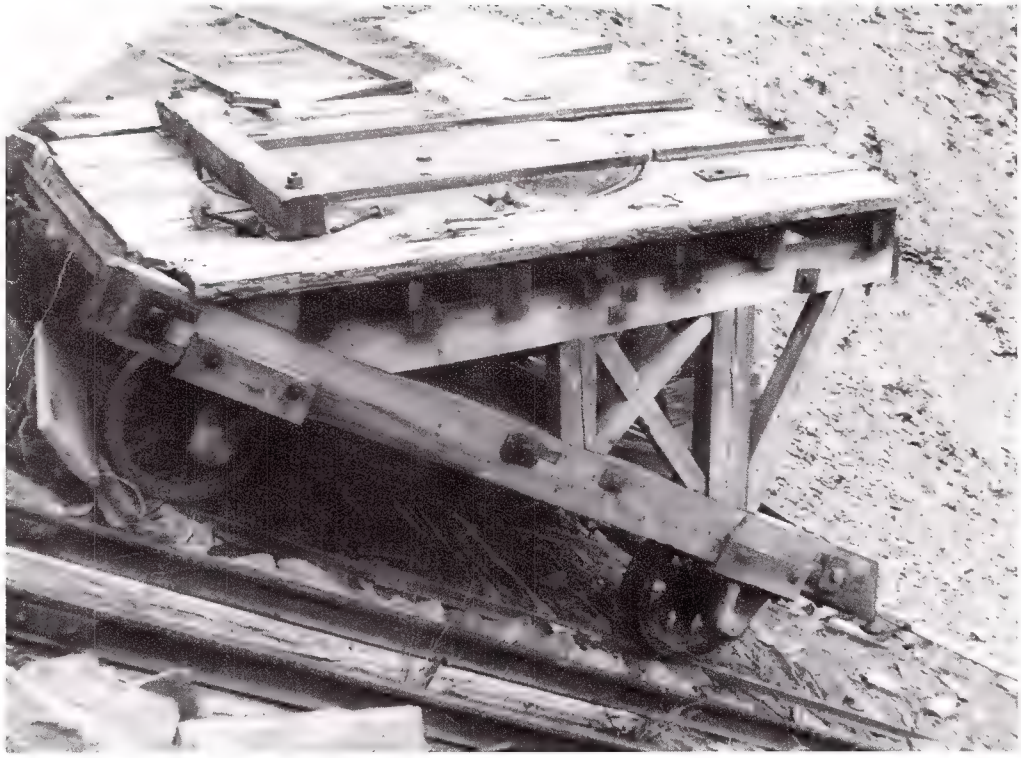
Fig. 4. Incline Operation



an open contact, the train will stop until the stepper wiper moves to a closed contact.

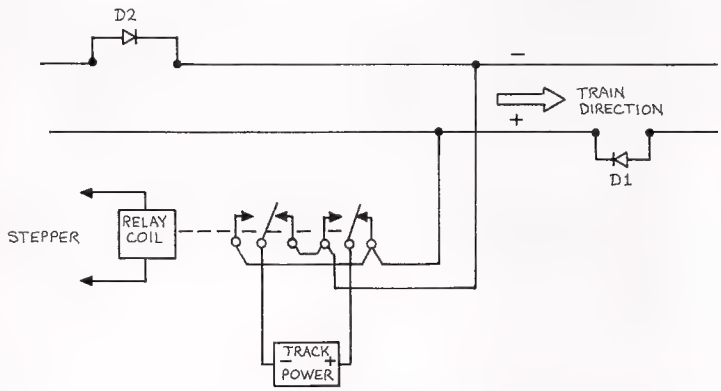
With my 50-position uniselector and the 30-second delays provided by the washing machine timer motor, my diorama performs a 25 minute program before repeating the sequence. At exhibitions small boys spend hours trying to work out what will move next, and I can't even help them, since I am unable to remember a sequence of 50, even though I wired it myself.

All three of my 4mm Welsh dioramas, described in this series, are now owned by the Welsh Tourist Board and are used at travel fairs to promote holidays in Wales. If you should visit England, I hope you will come west and visit this beautiful area of my country.



This prototype platform was used on the Aberllefenni Quarry in Wales. *Photo, collection of the author.*

Fig. 5. Reversing Relay and Dead-end Track Operation



Scratch-building an Sn3 K-27 in Brass

by Hayes A. Shaw
Photos by the author

Ever since I came across Allen Brewster's plans for D&RGW K-27 #453 in the June 1973 MODEL RAILROADER, I had been wanting to build that engine in Sn3. In October 1982 I ran across the first in Gordon Odegard's series of articles on scratch-building an HO gauge USRA Mikado in brass in the, then current, MODEL RAILROADER. This engine was so similiar in size to the Sn3 K-27 that I had been wanting to make that I decided to use Gordon's techniques in building my K-27.

First I made copy machine copies of Allen's plans and then drew four basic S scale drawings from them - one each of the frame, bearings, tender, and boiler. I also made no less than 153 freehand sketches as I developed the various parts, and built and installed them.

Many excellent S scale castings were available for this K-27, both from Precision Scale Models and Tomalco. I was able to buy the stack, domes, headlight, air pump, cooling coil ends, sanders, machined wheels on axles with counter weights, pipe fittings, crosshead guides, grate shaker, air brake cylinders, pilot deck plate, bell, generator, leaf springs, rear frame extensions and cross member, smokebox, front pilot truck, some trailing truck parts, photo engravings for the tender, fire box parts, and cab sides, front and back. If you decide to build this model, even more parts are available than there were when I built mine in 1982.

I scratch-built the main frame and bearings, boiler, cylinder assembly, side rods, valve gear (except for the rocker arm), pilot and spring linkage. I also used a variety of brass wire, shapes, rods, tubing, angles, channels, and flat sheet, plus a lot of determination.

Since I do not own a lathe or milling machine I turned my parts using a power drill and files (Photo 3). All soldering was done with a 125 watt electric soldering iron, a soldering "pencil," and a small butane torch that I made from information in articles by Eric Bracher in the September 1968 MR and the February 1982 NMRA BULLETIN. I also made a surface gauge based on information in an article in the August 1972 MR (Photo 4). A good many 000-120 and 0000-160 screws, nuts and taps from Caltronics Laboratory were used.

I read and re-read Gordon's articles and used his techniques as "the letter of the law." The main frame was hand cut from 1/16-inch-thick flat ground steel just like Gordon's (Photo 5). I cut all my other parts the same way except for the bearings that had to be separate because my engine had an outside frame. Pattern maker's dye was used to layout the parts on sheet brass making it easy to see what I was doing during the cutting. Gordon's directions were so clear that I followed his techniques closely for the whole locomotive.

I had some difficulty holding parts in alignment while soldering them, so I developed several methods of holding parts together during soldering. One method

Photo 1 (above). The author's completed Sn3 model of D&RGW K-27 #453 before it entered the paint shop.

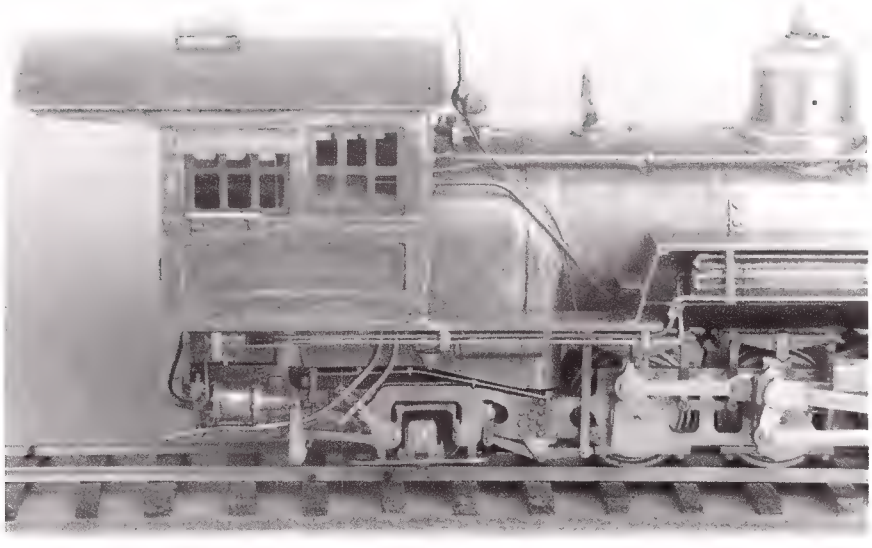


Photo 2. A close-up of the author's scratch-built K-27 showing some of the details including the working roof hatch, operating windows, awning, piping and ash pan when the engine was almost finished.

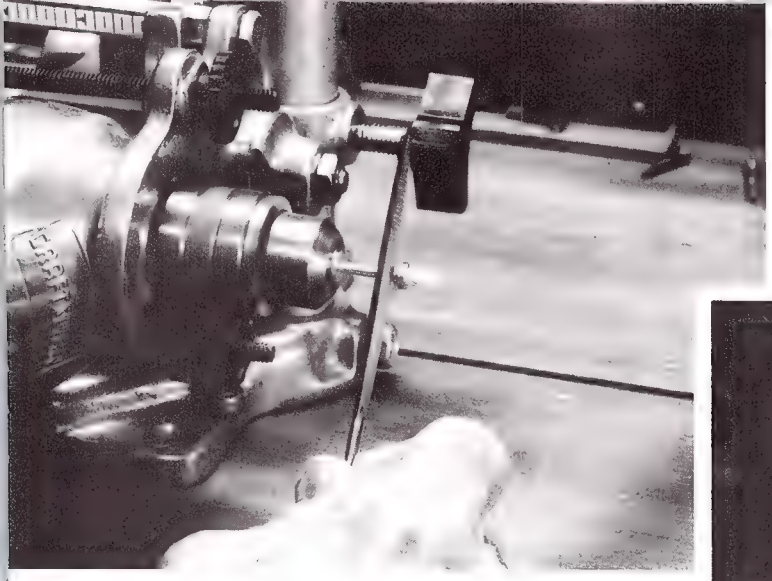


Photo 3. Since the author doesn't own a lathe or milling machine, he made all of the turnings on his K-27 using a power drill and file.

involved joining the difficult parts with 5-minute epoxy. After the epoxy had set, I drilled a #78 hole or two through the parts. Then I pried them apart and cleaned the epoxy off with acetone. Next 0.016-inch wire "pins" were inserted in the holes I had drilled and held the parts in place while I

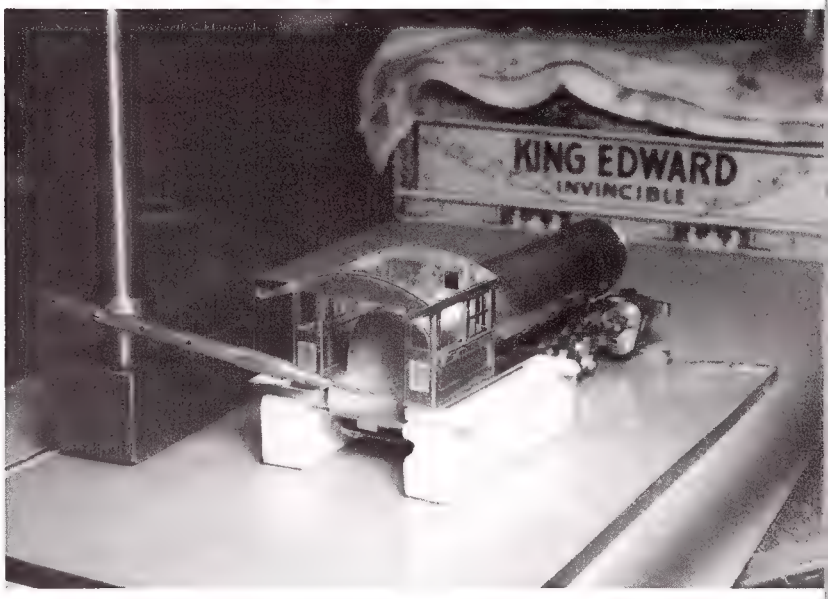


Photo 4. The author made this surface gauge based on data in the August 1972 MODEL RAILROADER.

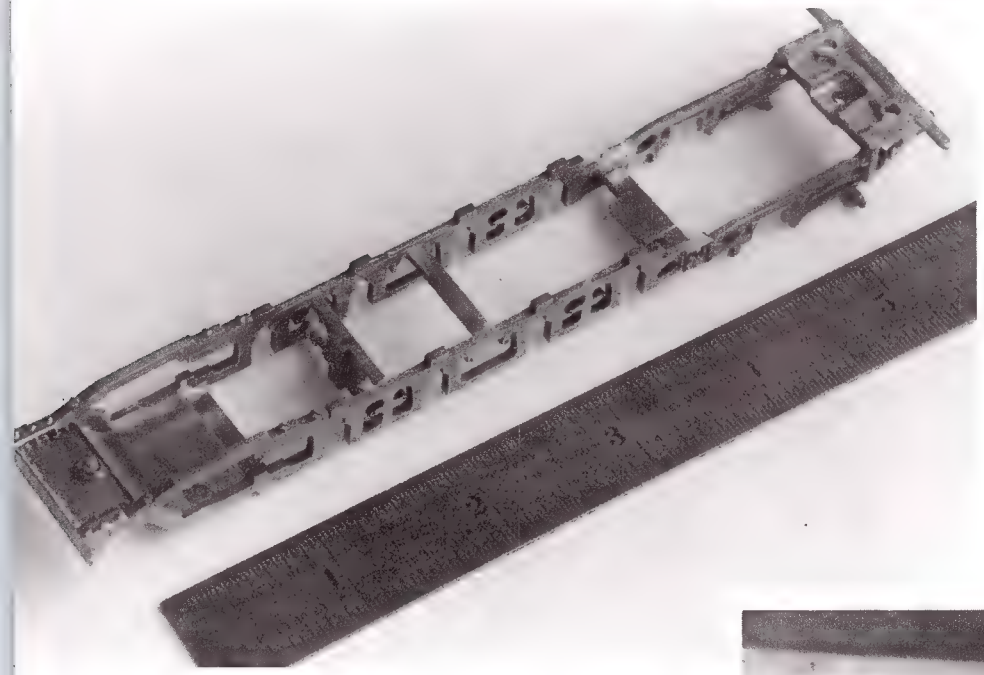


Photo 5. The K-27's frame was hand-cut from 1/16-inch thick ground steel.

soldered them. I also used many wooden jigs (Photo 6) to hold parts in place while they were soldered.

For some reason, probably my error, the smokebox wrapper I had purchased did not fit so I had to scratch-build one. This meant that I had to impress rivets. Photo 7 shows the homemade equipment I used, it consistedof a die made from a piece of ⅜-inch drill rod with a "dent" in the end of it for the female part, and a standard punch as the male part. I set up my power drill in a drill stand with the standard punch in the drill. Then I inserted the female part of the die into a block and clamped it to the base of the drill stand. With this arrangement I was able to punch very clean rivets.

Again using Gordon's article and Alan's plans, I made the tender from a Tomalco brass engraving wrapped around a wooden

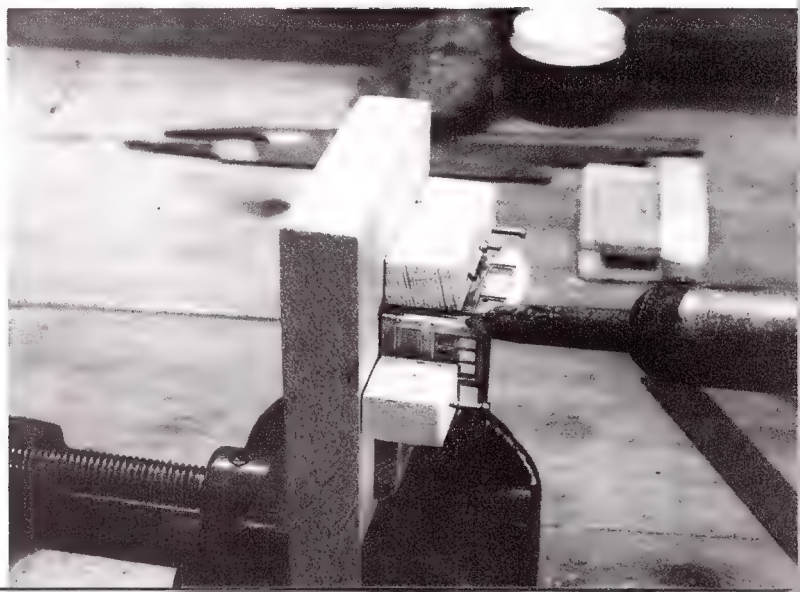


Photo 6. The cab of the author's K-27 in a jig being soldered. Many different jigs were used to hold parts during the construction of this engine.

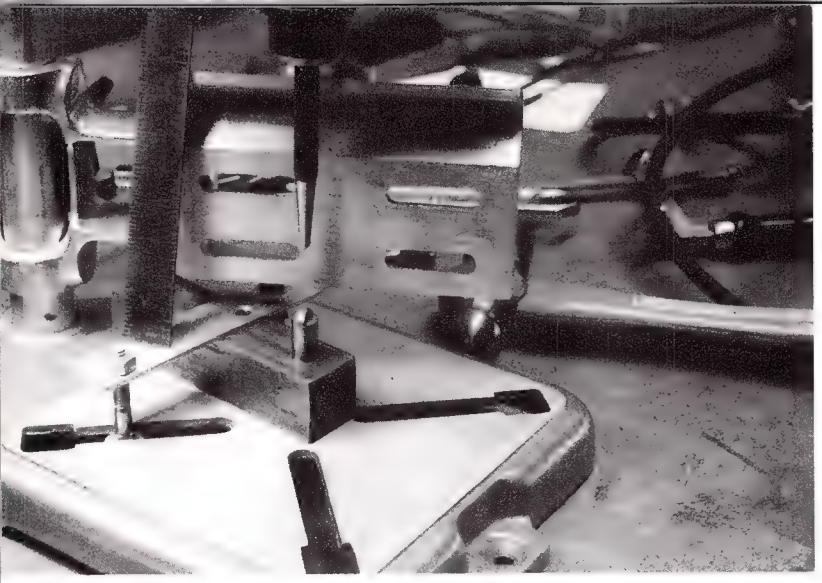


Photo 7. This punch and die arrangement was used to impress rivets on the K-27's smokebox wrapper.

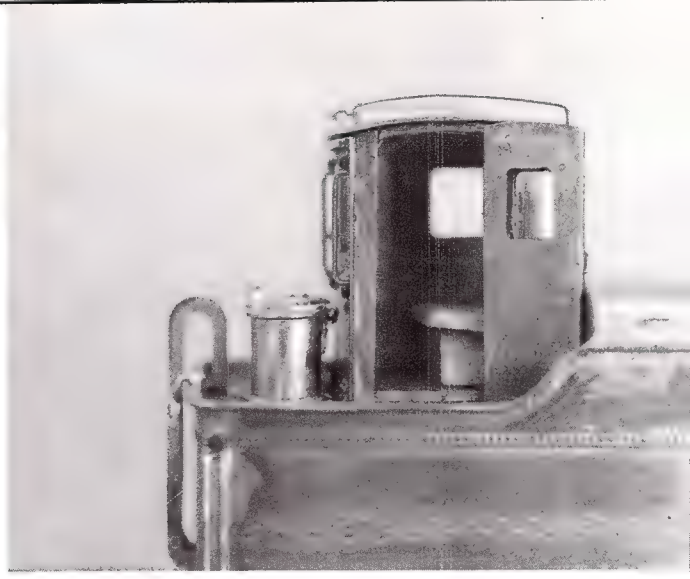
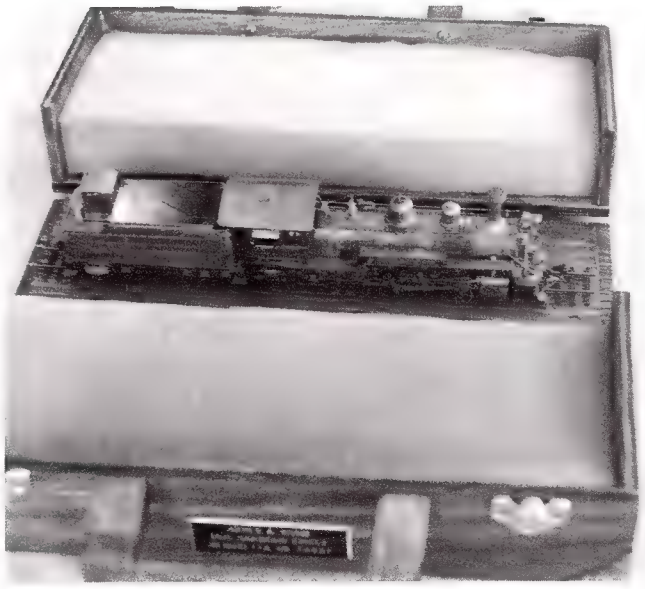


Photo 8. The brakeman's dog house on the K-27's tender has a real wooden seat and working hinges on the door.

Photo 9. The author's completed K-27 #453 in the carrying case his brother built for it.



form that my brother, E.O. Shaw, made for me. The tie-down strips and tender steps are from Precision and the re-rail frogs are Tomalco parts, but I made the hangers for the frogs. The tender trucks are Precision Scale parts. Since the locomotive is powered with a Sagami motor I could not use a normal constant intensity lighting arrangement for the headlight. So I took a PFM constant intensity lighting unit out of a passenger car and installed it in the tender with separate leads to the headlight so it works independently of the motor.

I really enjoyed making the brakeman's dog house on the tender (Photo 8). It has a real wood seat and working hinges and seems to get the most attention when people see the model.

As a final touch my brother (whose hobby is woodworking) made a carrying case for my K-27 based on an article by Al Armitage in the September/October 1981 **GAZETTE**. The case (Photo 9) is stained, has brass corners, and a nice plastic label identifying its contents. It makes an attractive and convenient way of carrying and showing off the model and immediately attracts everyone's attention before they even have any idea what it contains.

I really enjoyed building this model. If you want to try your hand at a scratch-built locomotive make sure you read and re-read Gordon Odegard's excellent series in MR.

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Coach	C&S #70 Poor Ptd. Soho	35.00
Baggage	D&RG #168 Nice Pnt. Soho	40.00
Coach	D&RG #319 Dec. Pnt. Soho	35.00
Parlor (2)	RGS Edna needs stripped	30.00
Parlor	RGS Edna really nice	60.00
Coach	D&RG #270 Poor Pnt. Soho	30.00
Coach	D&RG #210 Nice Pnt. Soho	45.00
Coach	C&S rough Soho	19.00
Combine	D&RG #202 Fair Pnt. Soho	35.00
Combine	D&RG #202 Nice Pnt. Soho	45.00
Combine	D&RG Pagosa Junct. Rough	10.00
Coach	D&RG #310 poor paint	25.00
Baggage	D&RG #164 Dec. Paint	45.00
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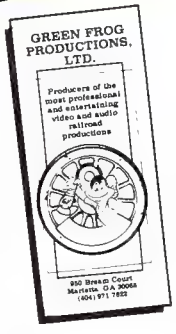
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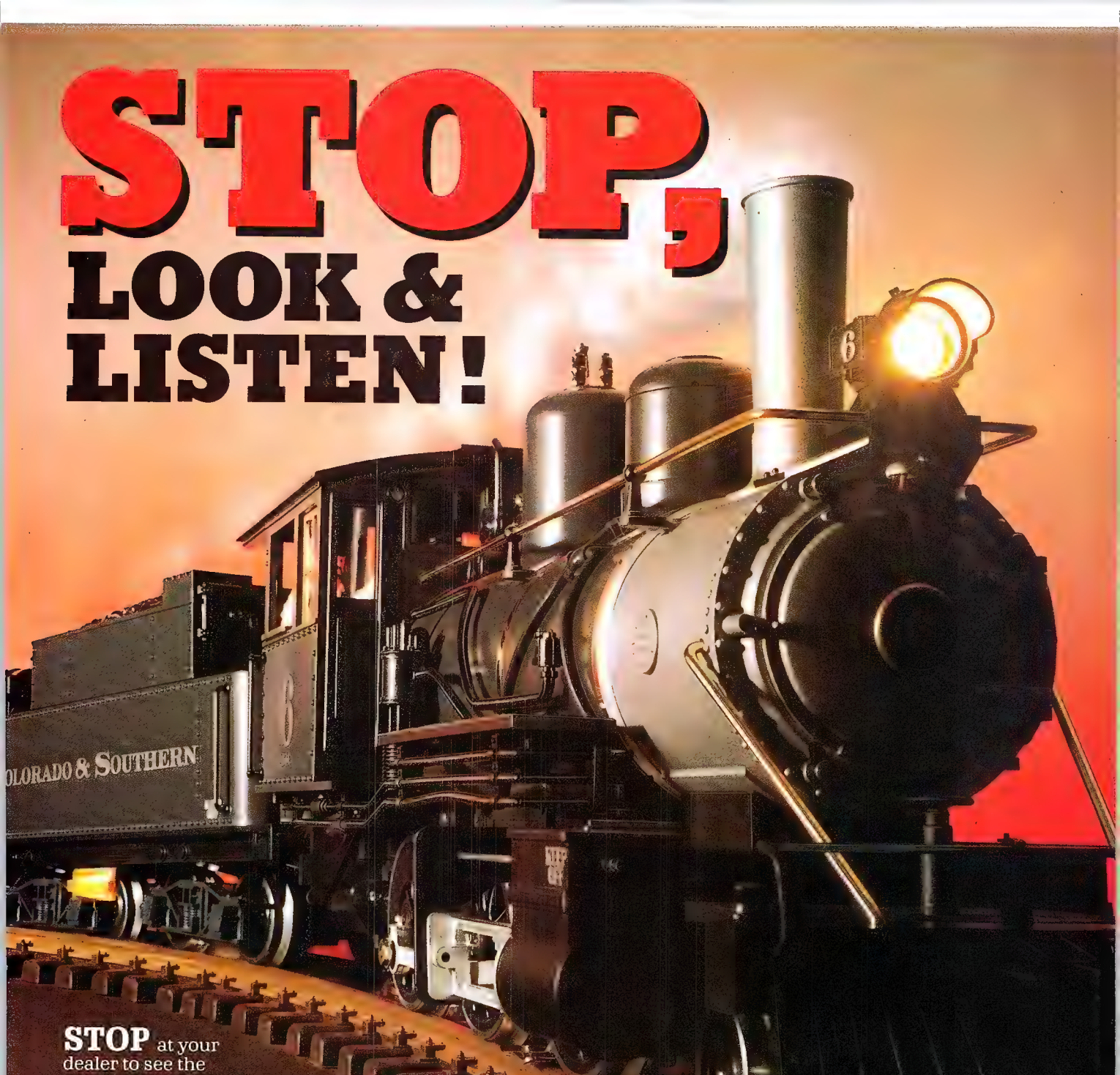

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Modeling 15-Inch Gauge Railways in the Garden

by Mike Decker

In the U.S.A., railroading in the garden is now an expanding segment of the hobby. Apparently many "rubber gaugers" like me are experimenting with this new (for us) dimension of model railroading. I got interested in Gauge 1 when my wife and daughter and I moved to the home we had built in the country; soon I was reaching into my past for a theme for our new railway. For fifteen years, I worked on the 15-inch gauge Riverside & Great Northern Railway at Wisconsin Dells, Wisconsin. I left there in 1977 to go to work for a real standard gauge line; now I'm hauling coal instead of shoveling it. However, I never lost my interest in 15-inch gauge, and it became the theme for our garden railway.

Fifteen-inch gauge railways had their roots in England. They were originally used for light transportation on estates where they hauled people, materials, supplies, and crops. The two most famous of these were built by Sir Arthur P. Heywood at his home at Duffield Bank and at the country home of the Duke of Westminister at Eaton Hall. Other lines were built by Sir Robert Walker on his estate at Sand Hutton, and by Mr. Charles Bartholomew of Blakesley Hall.

The 15-inch gauge lines that most people seem to know about now are passenger haulers. Some of you have ridden the Redwood Valley Railroad in Tilden Park above Berkeley, California, and I'm sure there are other such 15-inch gauge operations in this country. If you have been to England, you may have ridden the Ravenglass and Eskdale Railway (re-gauged from 3-foot gauge to 15-inch in 1915) or the Romney, Hythe and Dymchurch Railway (new in 1927). Both of these lines have been in continuous service since they were built, and the RH&D even had an armored train run on it during World War II as part of England's coastal defense system.

Fifteen-inch gauge equipment varies according to its purpose. Sir Arthur's railways were equipped with locomotives and cars of his own design. The Blakesley Hall Railway began with a U.S. built Cagney 4-4-0 and was the first 15-inch gauge line to use internal combustion locomotives. Its equipment included 4-wheeled dump cars that hauled coal to the estate power plant. Most of the other British estate lines used "scale model" style locomotives and cars, mostly designed by Henry Greenly, and built by Bassett-Lowke and other firms.

The garden railway at our house in the country is called the "Minnekahta Valley Railway," not after any existing railway, but after the valley in which we live. The Minnekahta Valley line started with LGB indoors but as soon as we bought a live steamer, we moved outdoors. We decided to use 1½-inch scale for our new line – in 1½-inch scale Gauge 1, or LGB gauge, is 14 scale inches, close enough to 15-inch gauge for the garden. The track and clearances were proportioned to 1½-inch scale, 15-inch gauge equipment. The loading gauge is 5¾ inches wide by 9 inches high. Our longest cars will be 30 inches and the minimum mainline radius is 7½ feet. The absolute minimum radius for 15-scale-inch models would be 37½ inches, but we chose a large radius because Gauge 1 live steamers run pretty fast and don't like sharp curves. Our track plans call for about 170 feet of track, including five turnouts. We have about 90 feet of track and three turnouts laid so far.

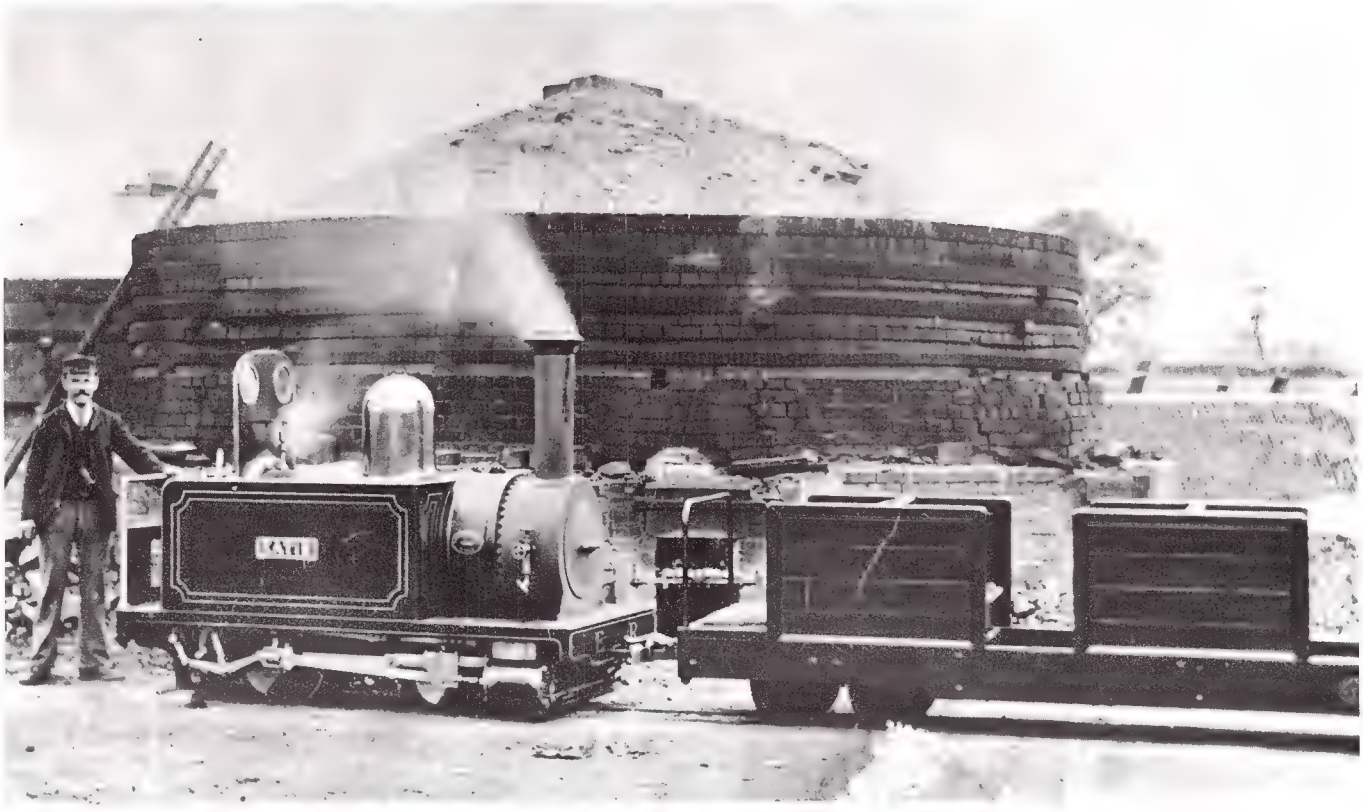
There are many ways to lay track in the garden. Our method is to lay the track on top of a gravel-filled ditch 4 inches deep, 9 inches wide, and filled with 1-inch rock. The track is laid in ⅜-inch rock chips and tamped down with an old screwdriver. Some low spots have appeared due to settling but these have been filled in with a little ballast.

Full-sized, 15-inch-gauge track uses rails as light as 12-lb on 3- x 4- x 30-inch ties and as heavy as 35-lb on 3-foot-gauge ties. The French industrial Decauville system uses 16 to 20 lb rail riveted to stamped steel ties. Sir Authur developed a cast iron tie 6 inches wide by around 2 inches thick and 36 inches long. The rails were keyed into cast-on chairs (tie plates) with spring-steel keys. For modeling 15-inch gauge, commercial rail is available in code 197, 250, and 332 (8-lb, 12-lb and 20-lb respectively). Our track is code 332 rail on ½- x ¾- x 4½-inch ties spaced 3 inches center to center.

The equipment on the Minnekahta Valley Railroad is a varied lot. Our daughter, Sarah, likes to give her dolls train rides, so I built a radio-controlled battery package to fit an LGB 4-wheeled boxcar. Now she can run her LGB trains outside. I'm interested in tramways and other industrial railways as well as 15-inch gauge, so I run some of the small LGB 4-wheel tram cars with a radio-controlled Mamod steam engine. I also have some freelanced Koppel style industrial cars to go with the Mamod. The primary equipment on the Minnekahta Valley, however, is patterned after Sir Authur Heywood's locomotives and cars.

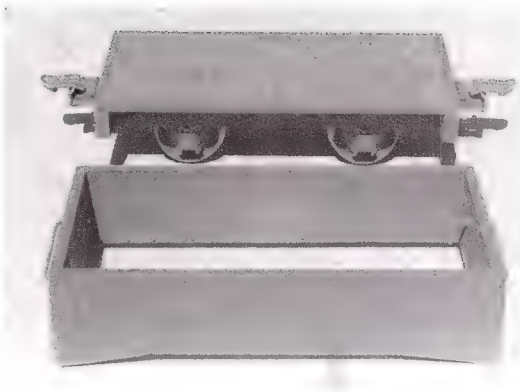
I have built some Heywood style 4-wheel flat wagons, a baggage car, and am working on a model of one of his open passenger cars. The wagons are built with ⅜- x ¾-inch stripwood frames and ¼-inch decks edged with brass angles. A "Heywood" buffer/coupler is bolted to the end sills. The flat wagons have removable "tops" of ¼-inch-thick wood that are also trimmed with

The 15-inch gauge Riverside & Great Northern #127 at the Hyde Park depot in 1965, near Wisconsin Dells, Wisconsin. A preservation group has been formed to keep this railroad running. Write to William C. Fitt, editor of MODELTEC magazine, P.O. Box 286, Cadillac, MI 49601, for details.



Eaton Hall Railway KATIE with an open passenger car at the estate brick works at Cukoo's Nest in England. *Photo by F. Wilde, courtesy of M. Jacot.*

Blakesly Hall Ry. PETROLIA at Blakesly station around 1910. This engine was the first 15-inch gauge internal combustion locomotive. She was a 4-4-2 with a steam outline. *Photo by J. Wyatt, courtesy of M. Jacot.*



One of the author's completed Heywod style wagons with the top removed. Note the Heywood style buffer/couplers. *Photo by the author.*

Two Heywood style wagons and a Duffield Bank brake van being pulled by the author's radio-controlled LGB engine. *Photo by the author.*

brass, and have handrails on each end. The brass trim helps align the removable tops of the cars and permits the tops to be stacked for high loads. The flat wagons can also be fitted with swiveling timber bolsters to carry long loads such as logs or girders. (On the Ravenglass and Eskdale the Heywood timber bolsters were even used to haul automobiles.)

My Heywood style passenger cars have ⅜- x 1⅛-inch side sills with ⅜- x 1-inch cross sills and ride on 4-wheel, wooden-framed trucks with Talgo style couplers mounted on the truck frames. Most of the passenger equipment is 29¼ inches long and has plywood bodies. I cut the scribing with a razor saw and use ⅛-inch-thick stripwood to represent the framing posts. The open cars are built like the prototype with full-size framing and 1/16- x ¾-inch stripwood and ⅛-inch cove molding. Since there were no commercial parts for 1½-inch scale Heywood style trains I designed and built my own parts.

Our locomotive "stable" is limited right now. An LGB 0-4-0 does o.k. with the Heywood cars but they are quite a load for the Mamod. I'm working on a model of the 4-wheeled, gasoline-powered, Simplex locomotive that replaced the steamers at Eaton Hall. Mine will be battery-powered. I may radio-control it but manual control works pretty well with battery powered engines. After the Simplex I'm going to try my hand at a live steam model of the Eaton Hall Railway's 0-4-0T, KATIE.

Building 1½-inch scale, 15-inch gauge models gives you very hefty equipment that rides like full size and even sounds full size when it goes over the rail joints. Also you can let your dwarf trees grow a little taller than you would for ½-inch scale or LGB. Fifteen-inch trains have been used to haul just about everything and modeling them gives free reign to your imagination. Just about anything goes in the garden, just like it did on the real thing.

Fifteen-inch scale Heywood style parts and plans by the author are available from him at Rt. 1, Box 102-E, Hot Springs, SD 57747. Send SASE for a list.

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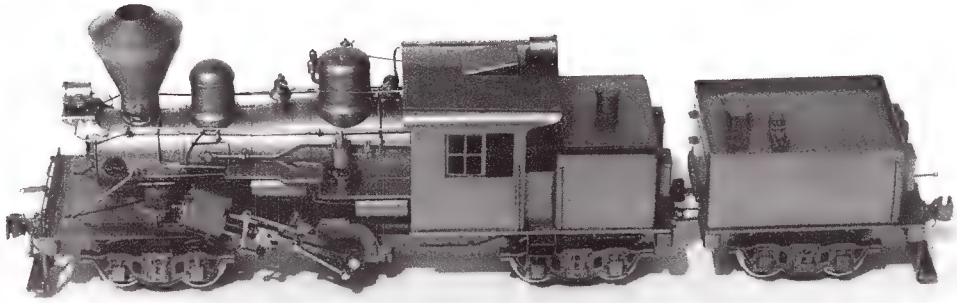

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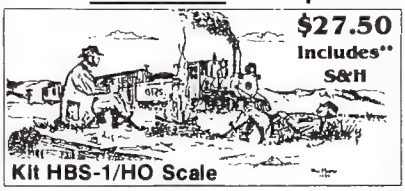

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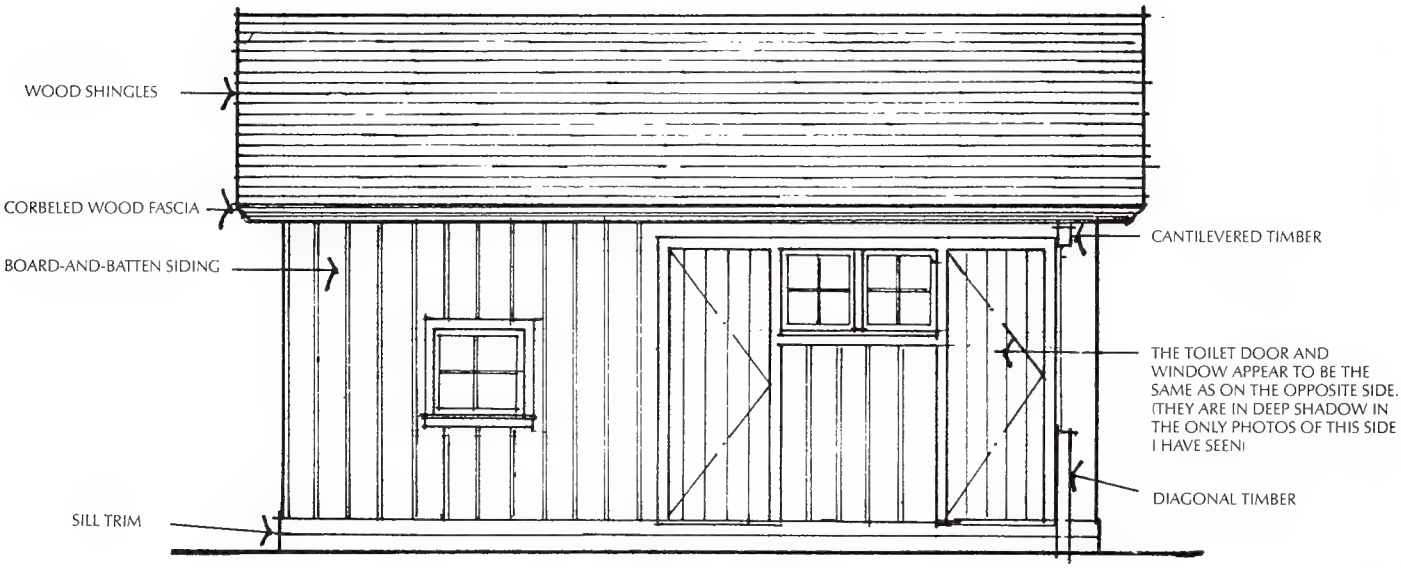
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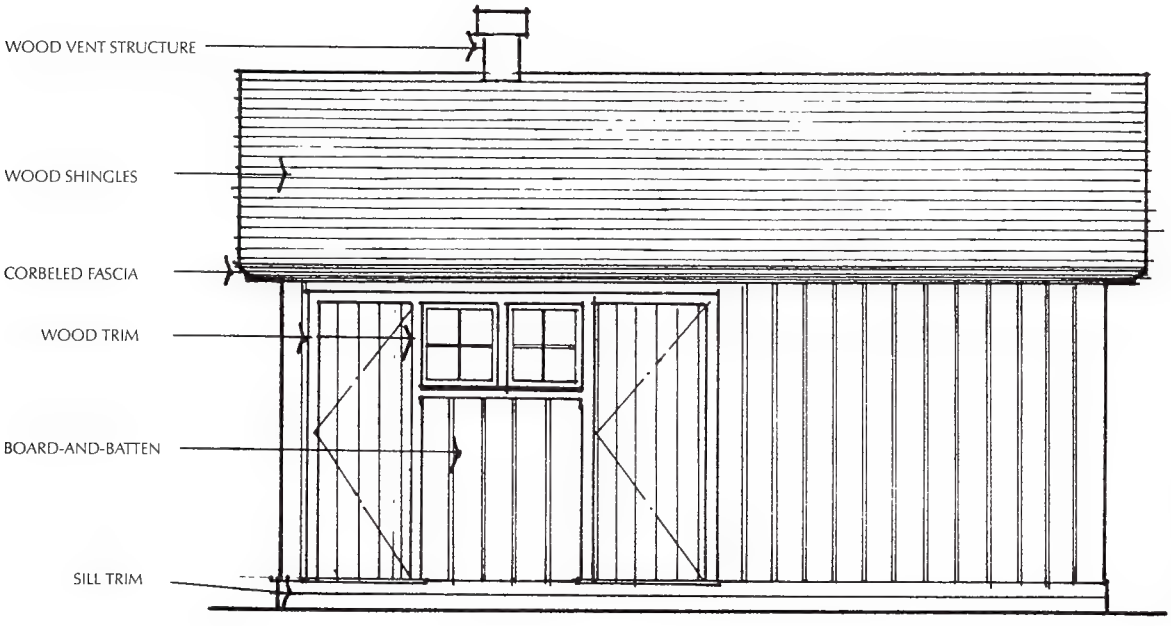
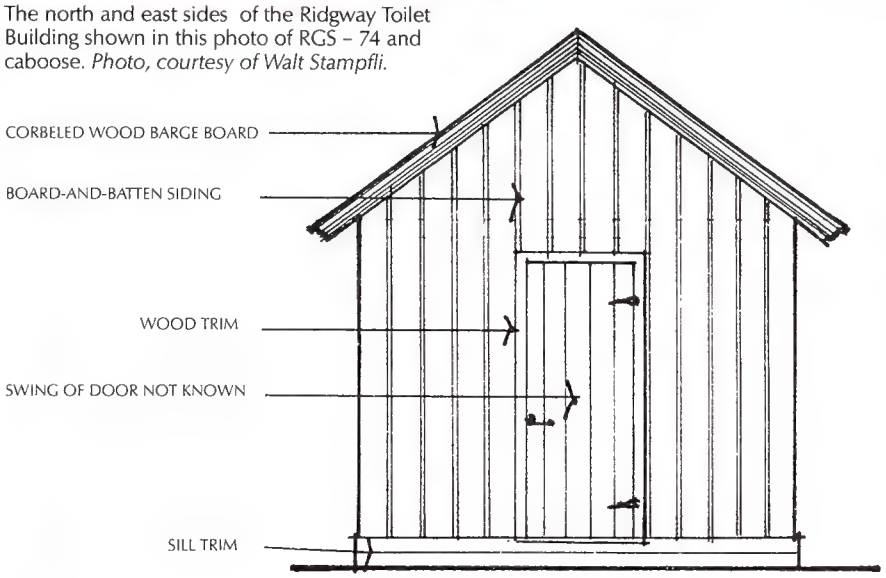


NOTE:
The scale was incorrect on the Mancos Section Car Shed in the last issue. It is in S-scale, not HO as labeled.

MAINLINE ELEVATION (EAST)

The north and east sides of the Ridgway Toilet Building shown in this photo of RGS – 74 and caboose. *Photo, courtesy of Walt Stampfli.*



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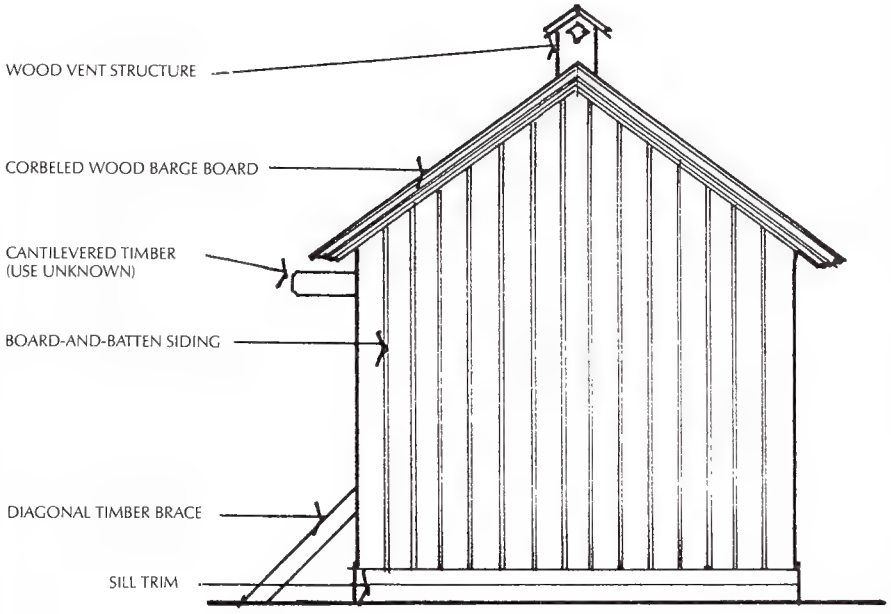

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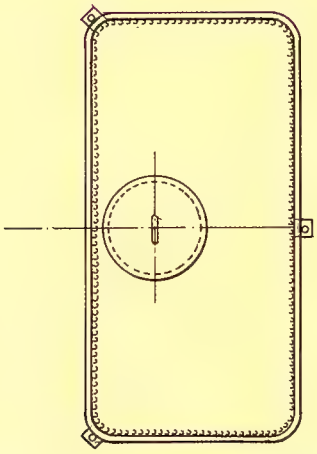
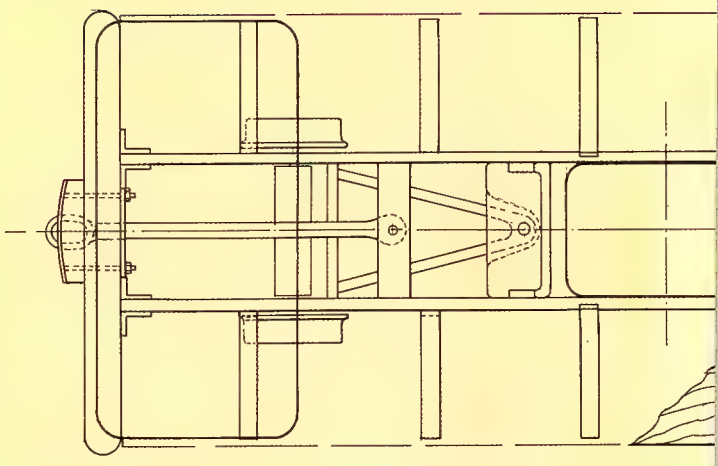
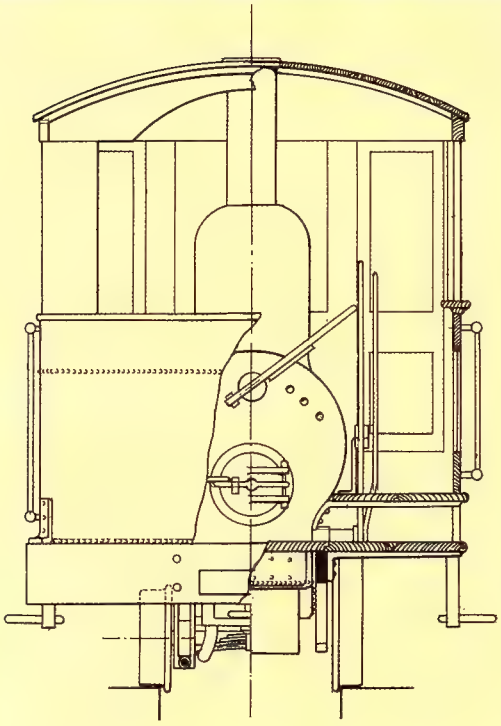
WESTFIELD PLANTATION PORTER #1

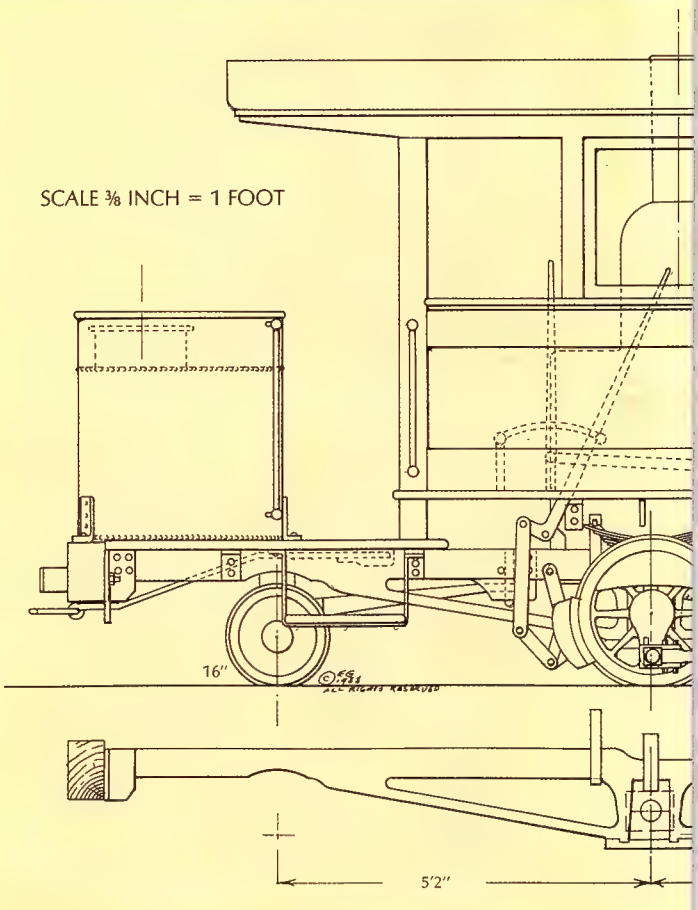
by Ed Gebhardt



TANK AND FUEL BUNKER



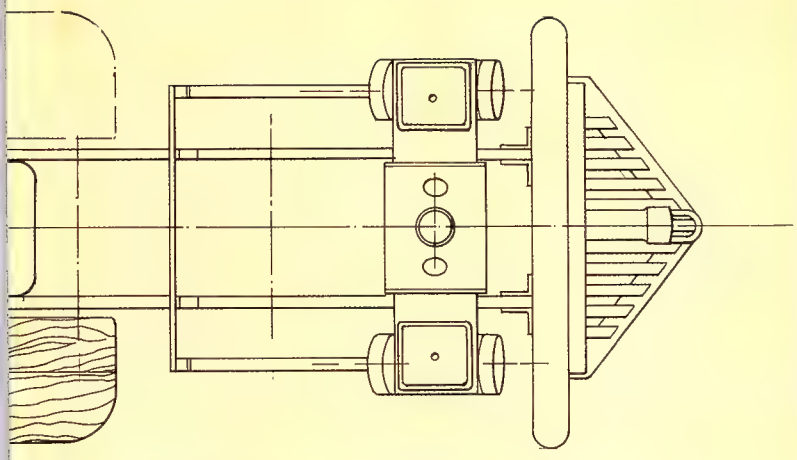


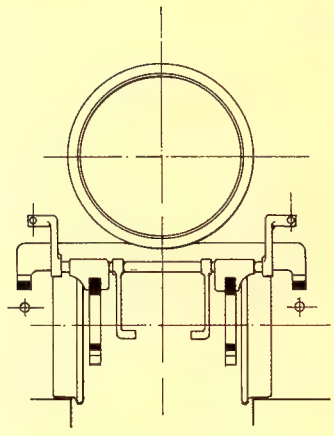


The H.K. Porter Company of Pittsburgh, Pennsylvania, was a popular builder of industrial locomotives and many of its engines ran in the Louisiana sugar cane fields. The Westfield Plantation of Paincourtville, Louisiana, chose a Porter for their #1. The company directors named her BERTHA and she arrived in 1897, having travelled by steamboat down the Ohio and Mississippi Rivers and up Bayou Lafourche to the plantation. Westfield also owned two other Porters, both 0-4-4's, #2, SARTOLA, and #3, ROSA.

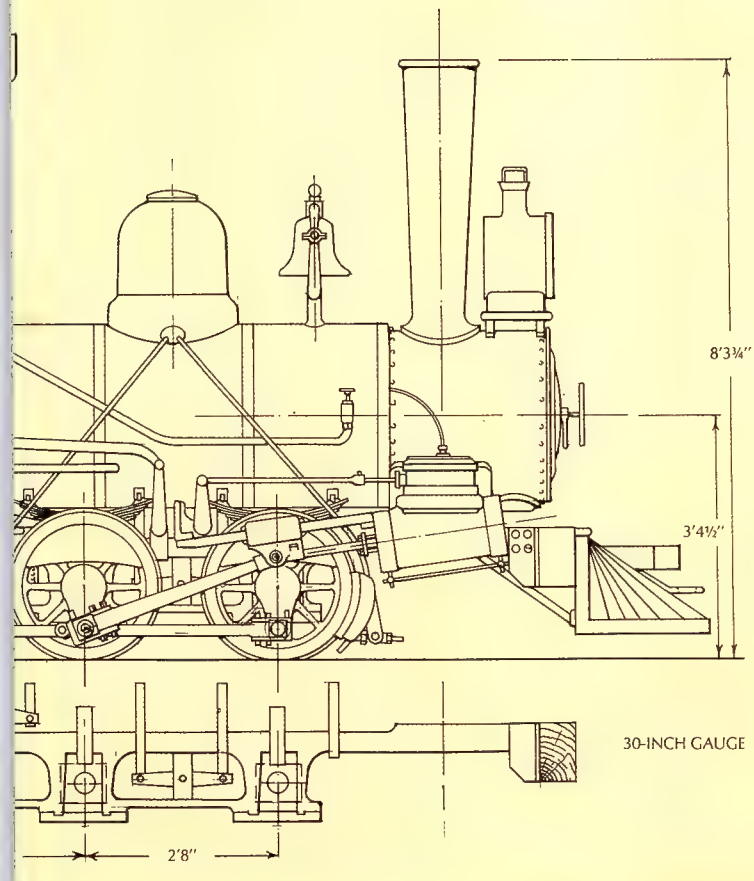
The original Westfield Plantation Railroad was 15 miles long and operated year round. Before improved roads and the automobile, the railroad was used to transport goods and plantation personnel. A homemade passenger coach was built for this service. There was also a special train for school children. As roads improved the passenger service was dropped and the railroad was only used during the grinding season from late October to January.

As the years rolled by, the Westfield Plantation line was reduced to about four miles. In 1959 two of the steamers were

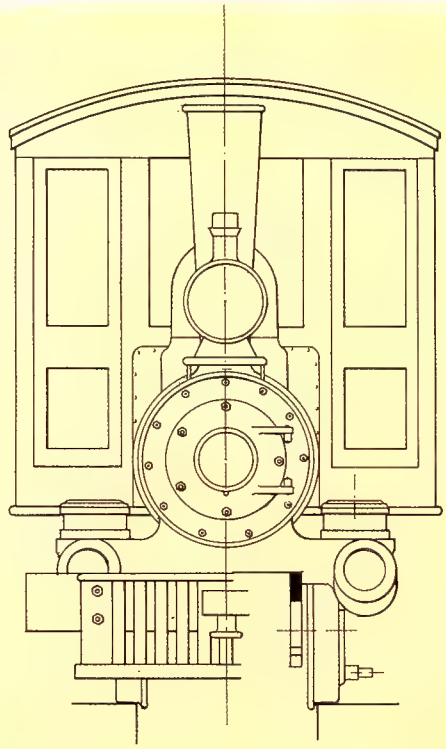




SECTION AT CROSSHEAD GUIDE HANGER



30-INCH GAUGE



sold and a 22 hp Davenport Diesel, with an unusual 2-4-0 wheel arrangement, was purchased. In 1961, the remaining steamers were sold and two more Diesels were purchased. They were never used because the railroad never ran again after the grinding season of 1960-61 was over.

BERTHA, the subject of my drawing, was sold to W.E. Butler of Pontchatoula, Louisiana, where she became part of his collection of narrow gauge equipment. She is still in existence and until recent years, was steamed up and run on many occasions. The engine was modified over the years and as she exists today, she lacks much of the charm and grace of earlier years. Her pilot was discarded in favor of a footboard, and her headlight was removed when night work was discontinued. Her cab roof was extended back to her fuel bunker to protect the enginemen from the relentless sun and frequent rainstorms. The drawing includes her simple handbrake which probably caused a number of hernias and bad backs; it was removed early in the life of the engine.

BERTHA bore shop number 1791, had 8 x 14 cylinders, 24-inch driving wheels, and weighed roughly 15 tons. She was 30-inch gauge. My drawing was made from a Porter erection print furnished by Mr. Warren Frye of Griffin, Georgia, owner of a Porter 2-6-2 once owned by the Pontchatoula Lumber Company, that he hopes to operate some day. Mr. Butler, who still owns BERTHA, is the author of *Down Among the Sugar Cane, the Story of the Louisiana Sugar Plantations and their Railroads* (Moran Publishing Corp., Baton Rouge, Louisiana 1980), a book I recommend to anyone interested in the Louisiana sugar cane railroads.

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Up Clear Creek on The Narrow Gauge

Part 53: Part 2 of A Trip on the UC&N Clear Creek Line

by Harry Brunk
Photos by the author

In Part 52 of my series I described the first part of an imaginary trip over my HOn3 Union Central & Northern Railroad. My time machine had taken Bill Sheldrick, Leighton Slough, Rick Steele and myself back to the fall of 1932. Our train had been sidetracked on the Stanley Spur waiting for Engine #69 to come and pick up a flatcar carrying a bulldozer needed to clear a slide that was blocking our train from entering Georgetown. Since this slide was proving to be more of a problem than expected, Leighton Slough decided to wait it out in Idaho Springs with us. Leight, you may

Photo 26 (right) and 27A (above). These photos of UC&N train X-70 West were taken by Leighton Slough on the 1932 trip described in this article. Color film had not yet been perfected in 1932 so Leight got the color plates he took these photos on from the Lumiere company in France. They were very expensive. It was easy for us to get our engineer to stop the train for 90 seconds needed for these color exposures; turns out the engineer was an old buddy of Leight's from the time when Leight worked on the Clear Creek line.

Photo 15

Photo 16

Photo 17

Photo 18

Photo 19

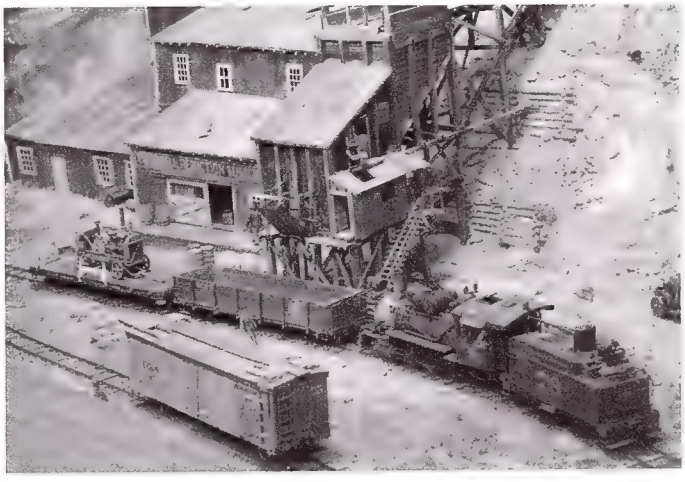
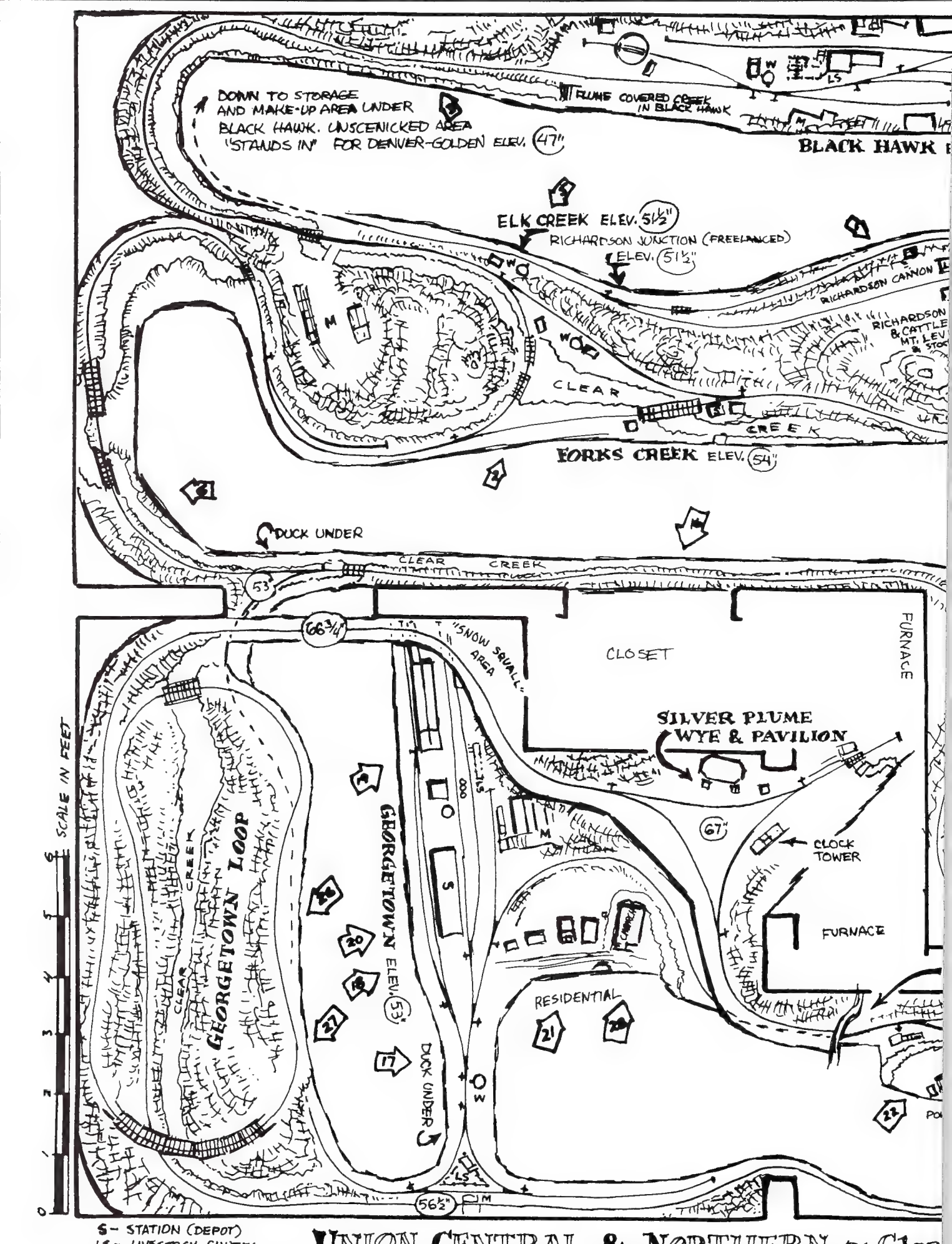
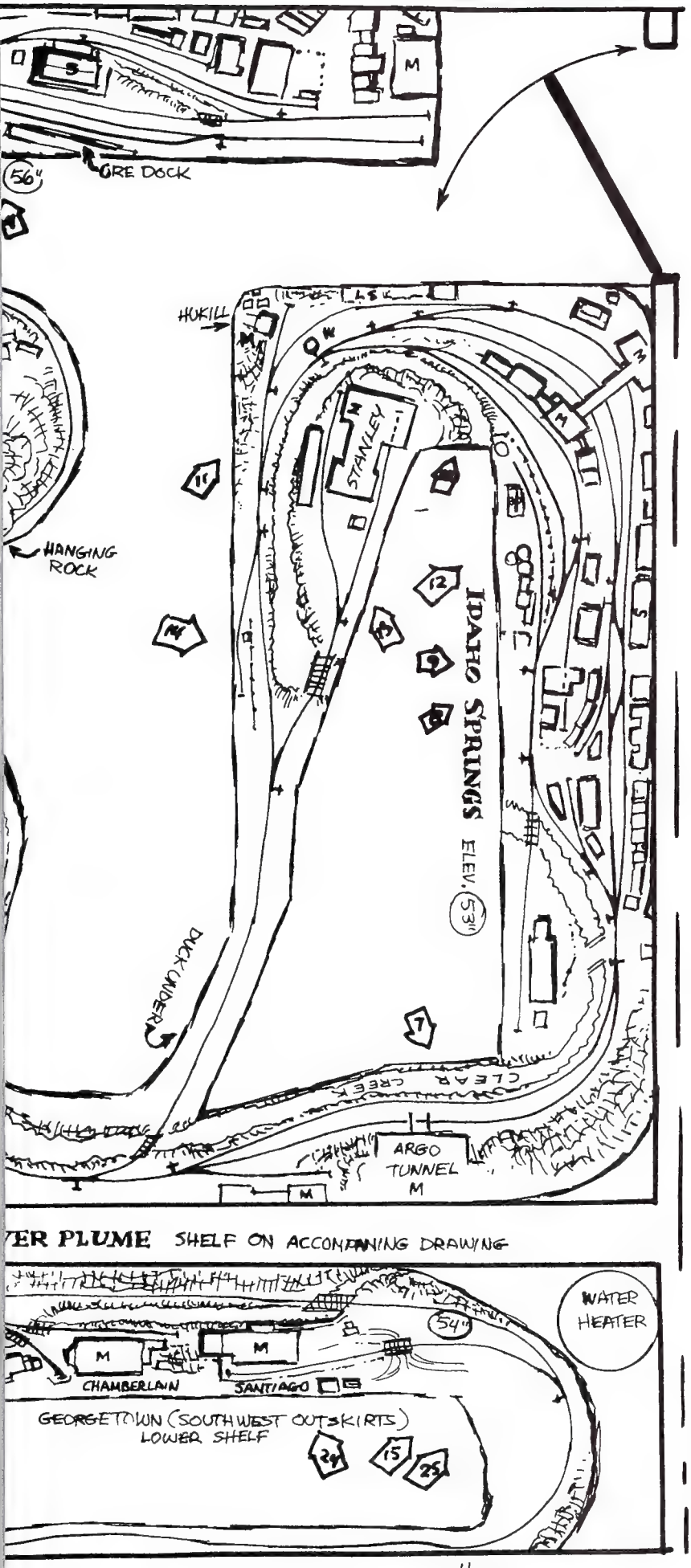


Photo 20

Photo 21

Photo 22


DOWN TO STORAGE AND MAKE-UP AREA UNDER BLACK HAWK. UNSCENICKED AREA "STANDS IN" FOR DENVER-GOLDEN ELEV. 47"
FLUME COVERED CREEK IN BLACK HAWK
BLACK HAWK
ELK CREEK ELEV. 51½"
RICHARDSON JUNCTION (FREELANCED) ELEV. 51½"
RICHARDSON CANNON
RICHARDSON & CATTLE MT. LEV & STOC
CLEAR CREEK
FORKS CREEK ELEV. 54"
DUCK UNDER
CLEAR CREEK
53"
66¾"
SNOW SQUALL AREA
CLOSET
FURNACE
SILVER PLUME
WYE & PAVILION
67"
CLOCK TOWER
FURNACE
RESIDENTIAL
GEORGETOWN ELEV. 53'
GEORGETOWN LOOP
CLEAR CREEK
DUCK UNDER
56½"
SCALE IN FEET
0 1 2 3 4 5 6
S - STATION (DEPOT)
LS - LIVESTOCK CHUTES
W - WATER TANKS
M - MINE OR MILL
UNION CENTRAL & NORTHERN ~ Clea



remember, was following by car to get photos of our train along the way. Bill Sheldrick and I were riding caboose #05 on Train X-70 West. While we waited we got out and chatted with the engineer to see if he would stop on the Georgetown Loop for at least 90 seconds, long enough for Leight to get a good photo with his rare and expensive color plates. The engineer turned out to be an old buddy of Leight so there was no problem.

Soon Engine #69 arrived with Caboose #02 and took the flatcar with the bulldozer and loading ramp from our train to help get the equipment to the slide sooner. X-70 West waited for go-ahead orders. We were not the only train delayed by the slide — the morning mail/passenger from Silver Plume was held up there, and would be only as far as Georgetown by the time we got there.

Meanwhile, Rick Steele had finished his Black Hawk local trick and headed over the pass in his Model A pickup. Not knowing of our delay, he saw #69's smoke plume beyond Idaho Springs and assumed it was X-70 West. His plan had been to meet us at Georgetown anyway. The bulldozer was being unloaded on the southwest side of Georgetown by the time Rick caught up with it and learned it wasn't our train. Not missing his chance, Rick took a photo of #05 showing the bulldozer being unloaded on the Hazleton Santiago spur. The old Best tractor, shown in the photo, had been borrowed from a nearby mine to help clear the slide. Since it was not equipped with a blade it couldn't do much but its driver did the best he could. As soon as the UC&N bulldozer was unloaded it got the rest of the slide cleared away in nothing flat.

Finally, X-70 West was westbound once more as shown in photo 16, with confirmed orders to meet #9 and the late morning mail ahead at Georgetown. Photo 17 shows #70 uncoupled to make it easier to line her up at the water spout. While #65 moved up for her drink, Leight moved on to the depot to get Photo 18 showing #9 waiting patiently with her mail/passenger train.

X-70 West cleared the line as a very late morning mail moved off towards Denver. Number 70 busied herself delivering the freight as shown in Photo 19. There was a load of lumber for Stewart and Wing, and, as shown in Photo 20, an empty coal car was shifted from Stewart and Wing to the Campbell mill for ore loading. The repaired Best compressor from Black Hawk is on the flatcar. The Campbell people had been anxiously awaiting both cars.

The switching had placed #65 on the head end of the train with a flatcar loaded with power poles between the two engines as shown in Photo 21. Photo 22 shows #70 jockeying the poles into the siding at the power company and Photo 23 shows the flatcar in position so the power company crews can get at it. The slide has made work for them as well as the UC&N crews.

Photo 24 shows our train passing the Santiago mill at a crawl and all of the equipment used to clear the slide was caught in

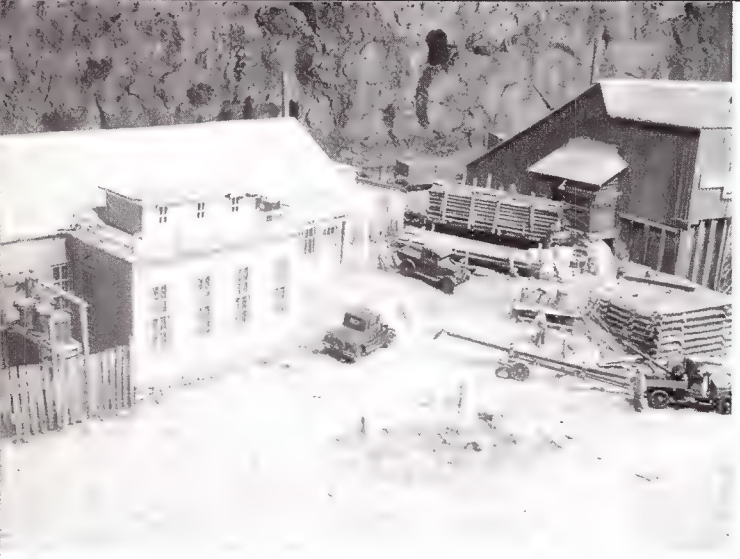


Photo 23

Photo 24

Photo 25

Photo 27

Photo 28

Photo 29

Photo 25. The bulldozer and ramp will be reloaded soon, and the Best tractor and compressor will go back to their mine, with a healthy rental fee to the UC&N.

Color Photo 26 shows our train pausing just before it started to stomp up the Georgetown Loop high bridge at a steady 10 mph. Our train has only four cars now, but heavy loads and steep grades require both engines. As we moved out on the high bridge I took photo 27 from the caboose platform. Meanwhile Leight unlimbered another expensive color plate and got Photo 27A of our train pausing on the Loop. Stopping on the loop was quite an experience. I understand they used to stop the tourist trains and let people walk out on the loop, but I don't think I'd want to try that.

Photo 28 shows us after we arrived at the Silver Plume wye and pavilion where we finally met up with Rick. A surprise encounter with Joe Crea called for this group photo. Bill stood between Rick's Ford pickup on the left and Joe's "Blue Bomber" 1927 Chevy coup on the right as I took Photo 28.

Finally X-70 West backed into the yards and was caught in photo 29 taking on some much needed water. Number 69 had topped off and headed back down for Denver, her helper duties completed. Number 6 and its passenger train are about to be bedded down and will be tomorrow morning's mail train from Silver Plume.

In photo 30, #70 is shown switching coal loads and the reefer to various Silver Plume customers. The ore-loaded coal cars in the foreground will make up part of the downward bound X-70 East train when #70 has finished switching.

Leight took photo 31 (his last shot) of our Caboose #05 and the Silver Plume Station as #70 shuffles about. The five of us decided on an early supper before going our separate ways. It had been a long day and Bill, Leight, and I were about ready to head back to Denver in Leight's trusty Model A.

On the way down later that night, Leight commented on the day. "The roads are better than they were when I worked around here 15 years ago, but the UC&N seems to intend to stay on as well. It's a good sign that they're managing to stay in competition with the trucking outfits."

But for how long? With my time machine, the answer is as long as I want it to. 1989 marks the 10th anniversary of beginning construction of my Union Central & Northern Clear Creek Line. I'm a long way from tiring of it.

Changes are on-going. But the basic plant – the UC&N layout – works well enough to provide hours and hours (actually years) of enjoyment even if no more construction ever took place. Still, there is always the need to update and improve things here and there.

These improvements and other matters will be the subjects of upcoming segments in the **GAZETTE** as "Up Clear Creek" continues.

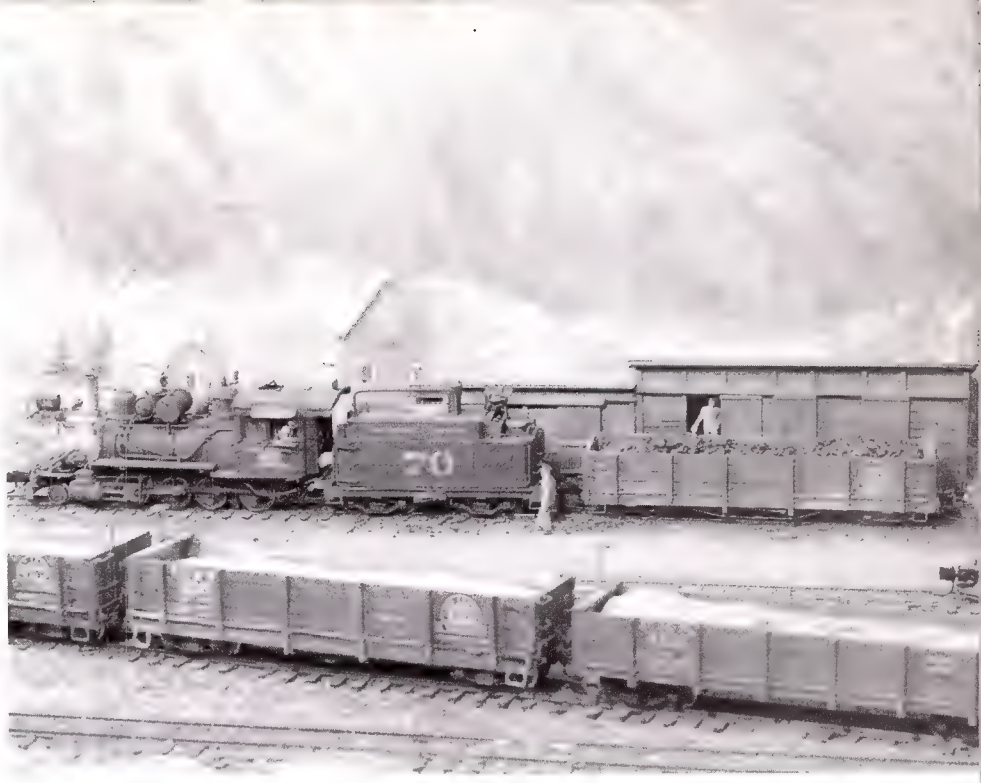


Photo 30

Photo 31

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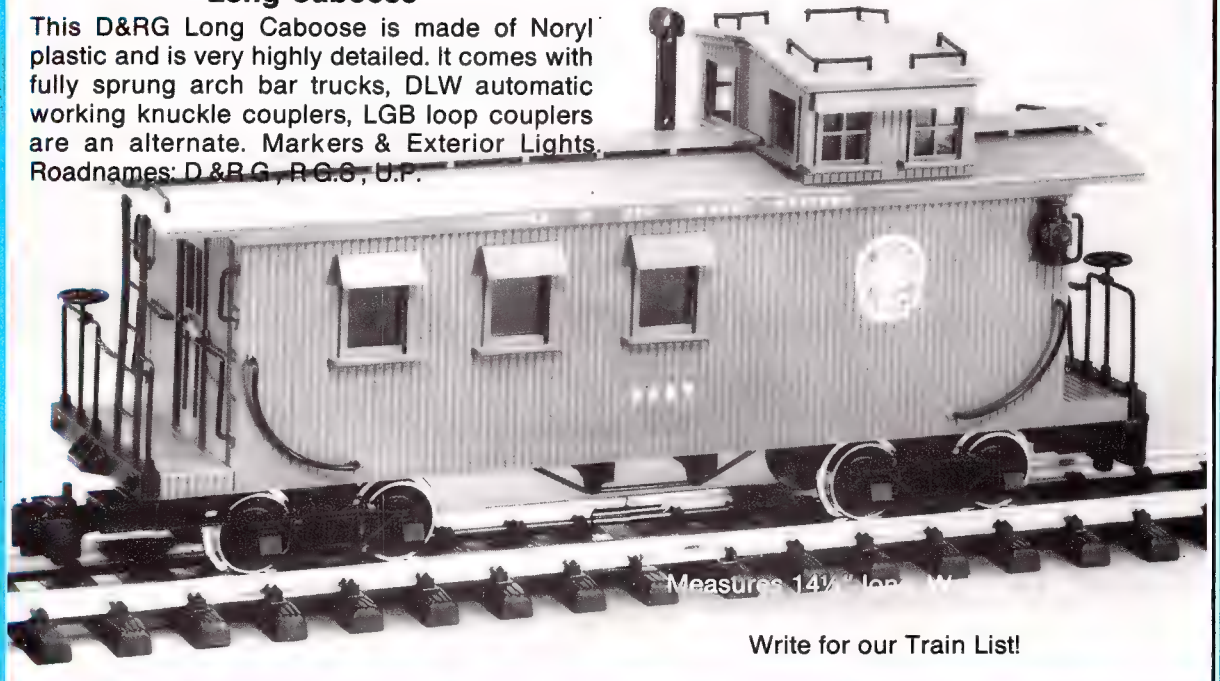

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in

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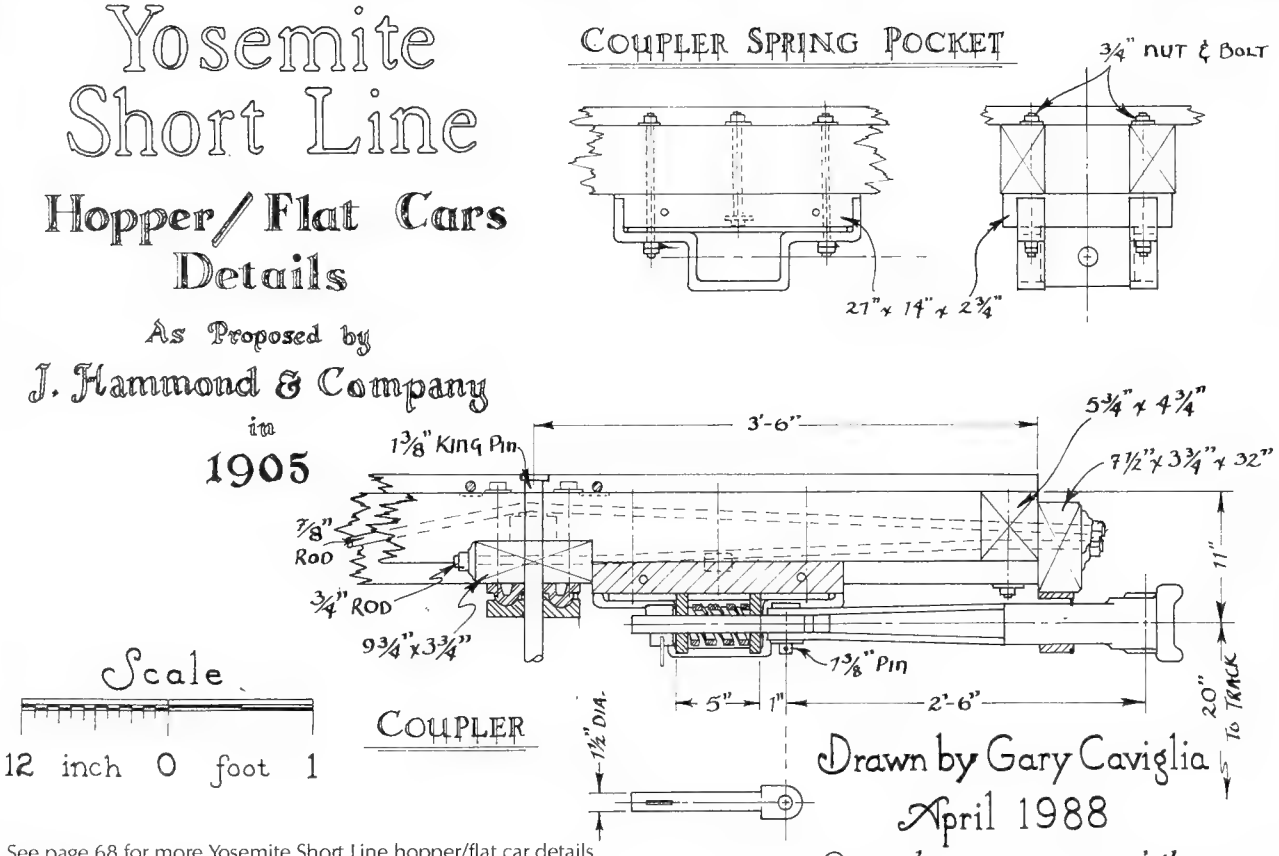

See page 68 for more Yosemite Short Line hopper/flat car details.

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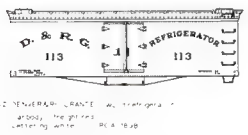

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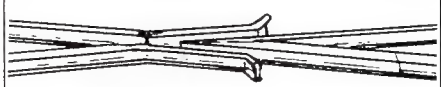

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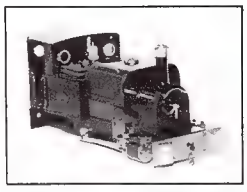

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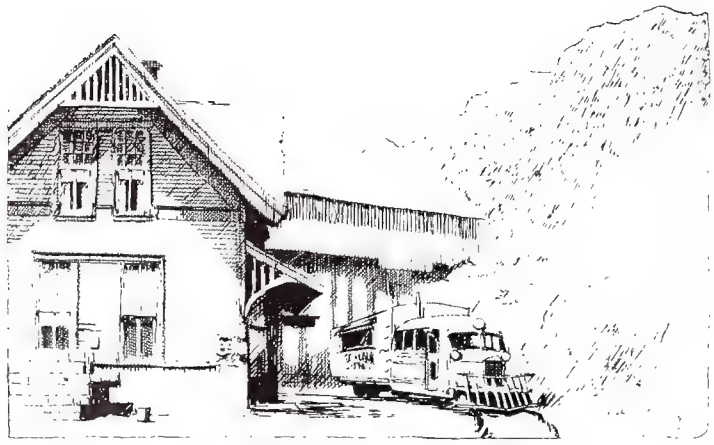


by Charlie Getz

PASSENGER CARS OF THE RIO GRANDE
Part 5: The Special Cars

In this issue I will discuss the unusual passenger cars that the Rio Grande itself referred to as "Special Cars." A few of the so-called "business cars," B-1 to B-8, that I briefly summarized in the May/June 1981 GAZETTE started life as Special Cars, so I will also include them.

Actually I have no definition of what constituted a Special Car. They were just cars that were so listed on the Rio Grande's own turn of the century folio sheets. Lettered A to P and R and X, they apparently served the railroad in a variety of ways, business, payroll, commissary, baggage-mail, etc.

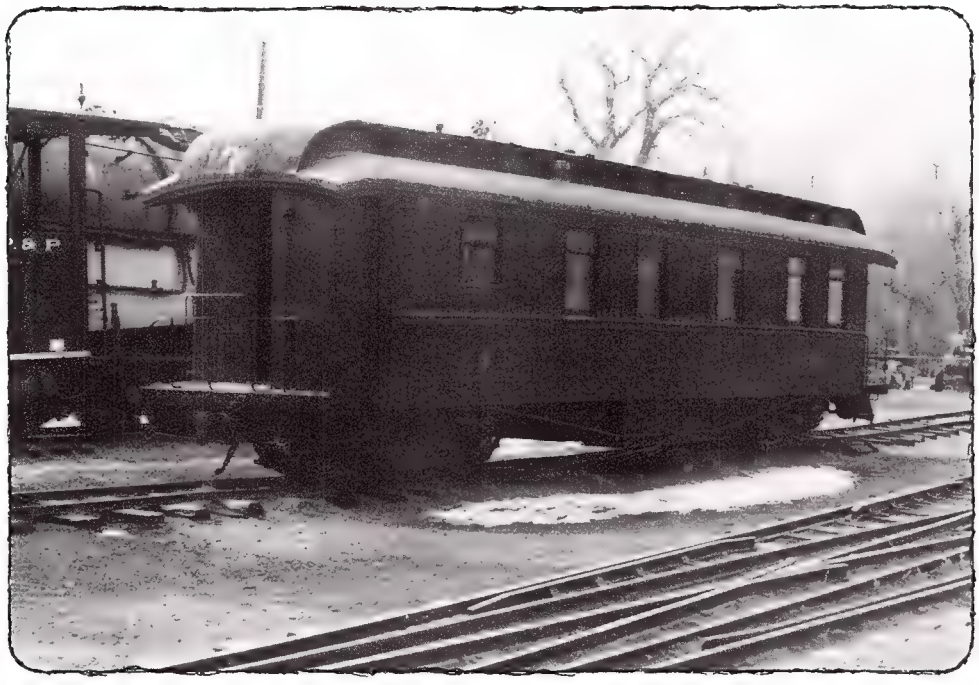
Special Car A was built by Jackson and Sharp in 1881 apparently as a business car. It was sold to the Rio Grande Southern in 1890, and named EDNA. Later renamed SAN JUAN, it then became B-20 and can now be found at Knotts Berry Farm in Southern painted as it was when it was named EDNA.

Special Car B was built by Jackson and Sharp in 1882 and was 51 feet long and 8 feet 5 inches wide. I have no other information about this car or its disposition. Special Car C was also built in 1882 by Jackson and Sharp. It started as a commissary car and later became baggage-mail car #118 in 1906, and bunk outfit car #0118 in 1926. This car lasted until it was retired at Salida in 1955. Special Car D was 44 feet 5 inches long. It was built as coach #33 by Jackson and Sharp in 1880 and became Special Car D in 1885, then business car B-6 in 1913. It was renumbered B-1 in 1917 and was eventually used as living quarters by the assistant superintendent at Minturn. Special Car D was donated to Alamosa in 1954.

Special Car F was 47 feet 4½ inches long. It was built by Billmeyer and Small in 1879 as Horton Chair Car #24, and rebuilt in 1886 as Special Car F, the paymaster's business car. (Special Cars F and G made up the payroll train.) Special Car F was renumbered B-5 in 1913 and B-2 in 1917. It later was named CINCO ANIMAS, a private car and currently resides in Durango. Special Car G was 42 feet long and 8 feet 5½ inches wide. A business commissary car, it was built by the Rio Grande in 1882 as a combination car and had a door near its middle. Special Car G later became bag-

The ALAMOSA, formerly business car B-1 and Special Car D as it looks today at Alamosa. Those are not the original trucks. *Photo by the author.*

The CINCO ANIMAS, formerly B-2 and Special Car F, at Durango. *Photo by the author.*



Special Car K at the Colorado Railroad Museum. *Photo by the author.*

Special Car B-7 at Durango in 1954. *Photo, Ed Crist Studios.*

gage-mail car #119, and was wrecked in 1917.

Special Car K has a disputed history. According to the folio sheets it was built by the Rio Grande in 11888, but Greg LePak in his book, *Vanishing Varnish* (Alpine Publishing, 1978), suggests it was built by Jackson and Sharp in 1872 as Coach #4 and rebuilt in 1885. This car was 41 feet 10 inches long and operated as Superintendent Ridgway's private car. The car was also used on the RGS and was later mounted on standard gauge trucks and operated as far as Montrose. The car was renumbered B-8 in 1913 and was later sold to the Uintah Railway in 1927. Upon the demise of that road in 1939, a private party bought the car, and it can now be seen in its restored glory at the Colorado Railroad Museum in Golden, Colorado.

Special Car N was apparently built by Jackson and Sharp and may be one of the oldest passenger cars in Colorado, having started life as Chair Car #16 in 1878. Originally it was 49 feet 2½ inches long and only 8 feet 1½ inches wide and sported an observation platform. Rebuilt by the Rio Grande in 1886 as Special Car N, it became B-2 in 1913, and was renumbered B-3 in 1917. This car was exhibited at the Chicago Railroad Fair in 1949 as the GENERAL WILLIAM PALMER and was later renamed NOMAD. Now stored at Durango, it was used by General William Jackson Palmer as a business car, and may also have been used by President Taft on one of his trips to Colorado.

Special Car P was built either by the Rio Grande in 1886 or Jackson and Sharp in the same year, depending on whether you go by the folio sheets or LePak. It was a combination kitchen car and was 42 feet 6

inches long and 8 feet 6 inches wide. According to my information this car was renumbered B-1 in 1913 and was destroyed in 1917, I have no other data on Special Car P.

Special Car R was built by the Rio Grande in 1880, according to the folio sheets, or by Billmeyer and Small, in the same year, according to LePak, as Baggage Car #17. It was rebuilt as Special Car R in 1885 and was 42 feet 10 inches long by 8 feet 4 inches wide. It became business car B-7 in 1913 and was later renamed the GENERAL WILLIAM JACKSON PALMER. This car is also in existence in Durango.

Finally, Special Car X was built by the Rio Grande in 1880 and was 51 feet 11 inches long and 8 feet 4 inches wide. This interesting car resembled an RPO car but had a boiler in one end with a removable smokestack on the roof and some 10 air pumps in a row at the other end of the car. There were two sofas and the interior of the car was painted apple green. This car was converted to an air brake inspection car in the 1890s when Westinghouse air brakes were first installed on narrow gauge equipment. It was used to instruct trainmen on the proper use of the new airbrakes. The car was struck from the narrow gauge roster in 1913 and was mounted on standard gauge trucks so that it could be used on other parts of the Rio Grande system.

A surprising number of these Special Cars have survived. John Maxwell has plans for business cars B-1, B-2, B-3, and B-7 (plans D-159 to DJ-162). I have included photos of some of the survivors but I would be interested in seeing photos of these cars in service on the Rio Grande.

Thanks for all the positive responses to this series and remember to write if the mood strikes.

Charlie

Photo - John W. Maxwell

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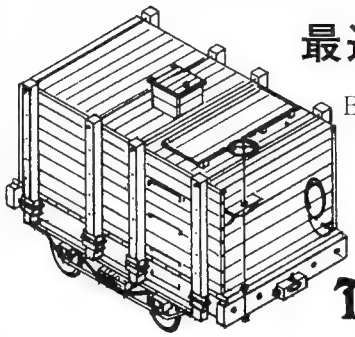

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SOME THOUGHTS ON GETTING THEM RUNNING

by Jim Vail
Photos by Bruce Kirk

Title photo: The author's HOn3 Glenwood & Black Creek Railroad runs well and demonstrates the author's philosophy: if you want to run trains and build trains with the idea of running them, your trains will keep running and giving you pleasure.

GAZETTE editor, Bob Brown, and I have had many discussions about getting trains to run, especially about HOn3 trains. Many modelers think that HOn3 is too small and that it doesn't run well; nothing could be further from the truth. HOn3 does run, and it runs well. In our conversations I often brag to Bob about HOn3. "It runs super!" I say. And he has to agree. Nevertheless, many modelers still think smooth, reliably running HO trains are unattainable, particularly in narrow gauge. This idea probably got started in the late 1960s or early 1970s when model locomotives often came with tender drives, open-frame motors, and poor gears and machine work.

Today that's all changed. Nowadays, most model locomotives run well right out of the box, needing only a little lubrication. Cars have trucks with round wheels that are in gauge, and don't short. Flextrack and ready-made turnouts make good track easy to obtain. And what could be better than Kadee couplers? All that is needed for perfect operation is a helping hand from us, the modelers.

Over many years of trial and error, I've developed a philosophy about what kind of "helping hand" it takes to get my HOn3 trains running. In this article I want to share that philosophy with you. Note that these ideas are not just for HOn3; they will work in any scale or gauge, and they are not just a list of techniques, these ideas reflect on how I approach the hobby and solve my operating problems.

Many years ago when I got my first engine kit, I assembled it and then put it on the track as soon as possible to see how it ran. Today I do the same thing when I get a new locomotive, whether it be a kit or an imported brass model. Other projects are shelved while I tinker with my new extravagance. I look for and fix little problems, lubricate my model, add couplers, test run, and enjoy my locomotive. This process may go on for several days and is a wonderful way to catch things that aren't working right on my new locomotive. Better to catch problems now rather than after the engine is painted, lettered, and weathered. Recently I have confined my locomotive modifications to motor swaps and gear changes. Still, I admire people who do more modifications. When I read the July/August 1988 **GAZETTE** and got to Harry Brunk's column where he describes the "strange and convoluted changes" he made in building his UC&N locomotives, I thought, "Now there's a man who builds locomotives with operation in mind." If you're planning any modifications that will improve operation, do them right away so you can enjoy testing them while your locomotive is still new.

Recently, while visiting the flawlessly operating Sn3 layout of my friend Don Harper, we talked about how he achieves such smooth operation. When he builds a new car he puts it on the layout just as soon as there is enough constructed to hold the trucks and couplers in place. Don then checks the coupler height, truck clearance, operation, and car weight on his most difficult track (note that's *difficult* track –not *bad* track). On his layout that spot is a crossover between adjacent tracks. Only when the car is rolling right does he continue with its construction.

The way I build right-of-way requires that same kind of "test as you go" approach. I build some track and then go over it, making sure there are no rough joints, kinks, or bad leads into turnouts. Sometimes I have to tear a few things out and start all over. When I am spreading dirt for scenery around my track, I continually clean out the flangeways as the glue sets.

Even scenery needs to be built with operation in mind. I check out new scenery for clearance during its construction with my big K-37 and her butterfly snowplow

pilot. I run her through the new section with a brakeman standing on her roof, and window shades sticking out from her cab. If that engine clears, then everything is all right.

When I have operation trouble, sorting out the problem often turns out to be more difficult that solving it. In order to solve any problem it is essential that you "point a finger" at the real difficulty. For example, imagine that your new Rio Grande Southern #42 shorts on every right hand turnout. You would rightly suspect that something in the engine, like a pilot wheel, is shorting. But if your new RGS #42 runs great until it hits the right hand turnout on your Placerville "Y," don't jerk it off the track and start probing the engine for faulty insulation. Try some of your other engines and see if they all have problems at that same turnout. If they do, your new engine is probably fine and it's your Placerville Y that needs fixing. My example is simple, but on a layout it is usually a lot harder. Sometimes the engine has a short and so does the turnout. Sometimes a little thing goes wrong here, another little thing goes wrong there, you aren't really paying attention, and you get discouraged with the whole thing. Don't get discouraged, pay attention to those little things, sort them into groups, and solutions will often become as easy as in my example. Once you have found the reason for the problem you can fix it. I just try to pay attention, keep my trouble spots in my head, and sooner or later it sinks into my mind what the problem is.

Another thing to take into account in your modeling is just how far to go in building your models. This is important because if you detail every single model to the nth degree you may never get on do to any operation at all, and lose interest. Noted model railroad authors, Allen McClelland and Tony Koester, have coined the term "good enough" modeling. I interpret this concept to be that you build your models to the best of your ability, to a reasonable and pleasing level, but not necessarily to the level where you consider them "done." It's modeling that portrays an overall good representation of the prototype for the time being – but modeling that is planned to be enhanced later. It's not poor modeling. I know a fellow who always says that his models are temporary. He is always talking about going back later and doing them over again, but he never does. That's not "good enough" modeling, that's procrastination. "Good enough" modeling is not slip-shod work, its good enough for now and allows you to get on with your layout until you can come back and refine the individual models.

Modelers often face the temptation of leaving difficult or disagreeable construction jobs until later, especially when the next step beyond the difficult job is more interesting. This could be a real problem – if there are too many tasks you don't enjoy, you may never get to the tasks you do like. I'm not that bad, but I do have an example where I put off a difficult job, which I regreted later. I love running multi-engined trains; this requires that I have couplers on the front ends of all my locomotives. (My article on how to install front end couplers appeared in the January/February 1988 **GAZETTE**). When I was preparing my new RGS #20, I was eager to get it painted and installing a front end coupler looked like an awful lot of work. Besides, I reasoned, I was going to use the engine in passenger service and would never double-head it. So I left the dummy coupler in place; now I have a nicely-painted engine that has limited use on my grades because it can't be double-headed. I can't easily fix it because I don't want to ruin the paint job. This just shows how easy it can be to talk yourself out of a little extra work and create an operating problem.

Just as it may be difficult to discipline yourself to do thorough work during initial construction, it may sometimes be hard to get yourself to maintain your railroad. Who wants to stop an interesting project to repair a sagging coupler? After all, it only catches on a turnout frog when visitors are present. I guess it's a fact of life that no matter how much better our models and their components keep getting, we will always have to do some kind of upkeep on them, and it will always be a chore. I feel the best solution to this problem is to make maintenance as effortless as possible.

One of the biggest chores on any model railroad is track cleaning. I rely on dragger cars like those I described in the July/August 1988 **GAZETTE** to keep my HOn3 track clean. A bunch of these cars keeps my HOn3 line clean, but for years I never built any for the standard gauge portion of my layout. Finally, I could stand the embarassement of intermittant operation no longer – I built five standard gauge dragger cars. The difference in operation was startling. These cars have practically eliminated the need for hand-cleaning track. I now only use an abrasive block after

The author's new HOn3 layout.

soldering, and I haven't had to clean a standard gauge wheel yet.

The most important ingredient in having realistically running trains, no matter the scale, is to have a realistic operating philosophy. You have to want to run trains, you have to build with the idea of running the trains you build, and you have to plan your maintenance with the idea of keeping your trains running. Once you embrace this philosophy, you will find yourself running trains and enjoying it and the philosophy will become self-reinforcing. You'll see two K-36's, counterweights endlessly churning, work slowly along side a cliff with a 19-car stock extra; or you'll see your Nevada County Narrow Gauge Mogul #5 with a train of open-vestibuled passenger cars ease into Grass Valley; or you'll watch a Sumpter Valley 2-6-6-2 snake a train of skeleton logging cars past Baker siding. No one can do it for you, you can only try this philosophy for yourself; but once it is realized you will find that this approach can be the basis of a whole new enjoyment of modeling.

Yosemite Short Line

Hopper/Flat Cars Details

As Proposed by
J. Hammond & Company
in
1905

Drawn by Gary Caviglia
April 1988

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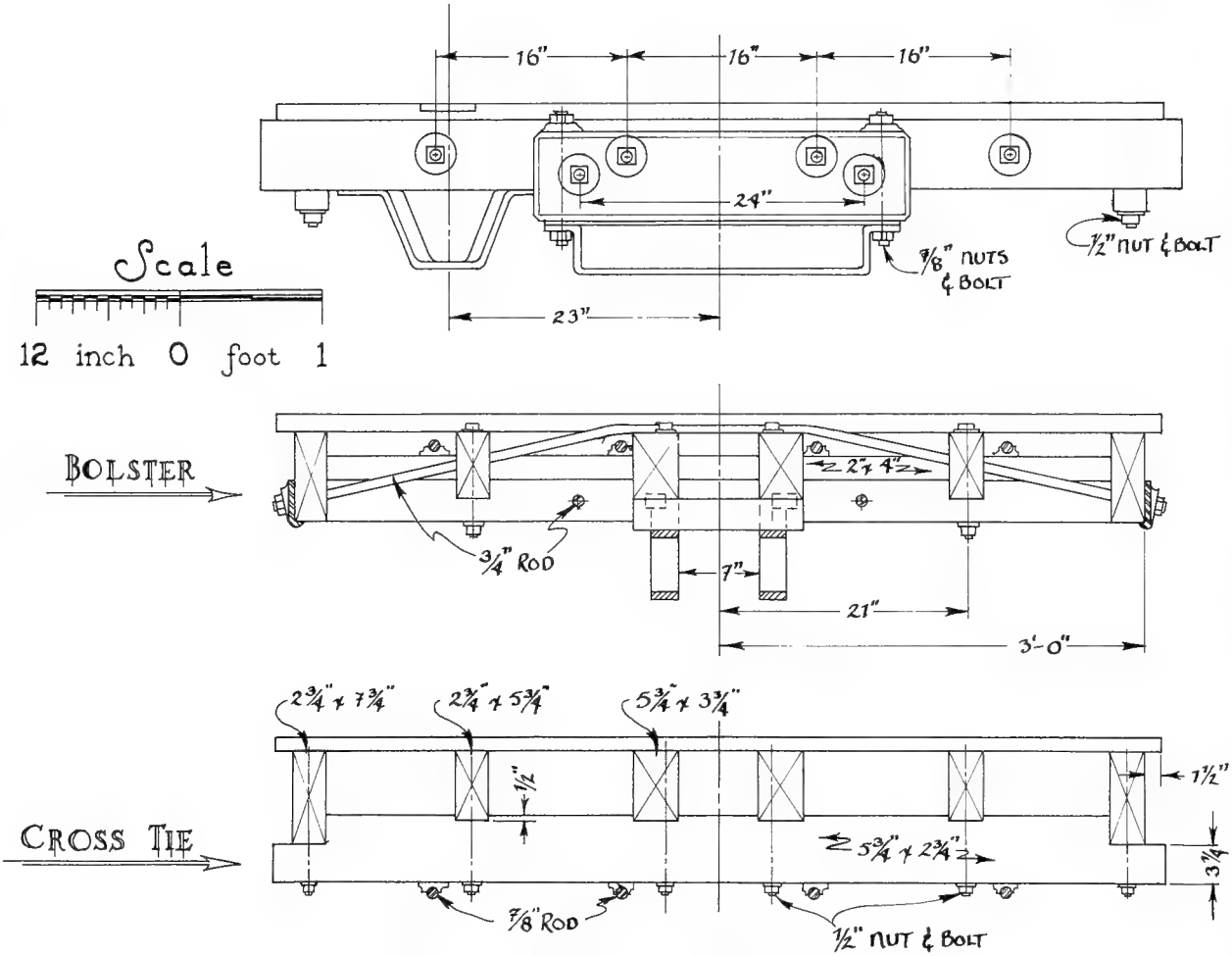
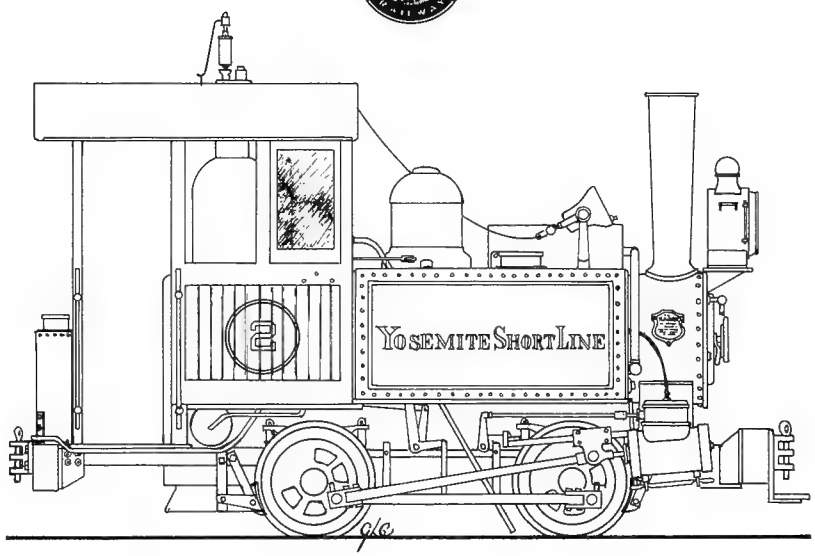


See page 62 for more Yosemite Short Line hopper/flatcar details.

Yosemite Short Line

Engines 1 & 2

30-inch Gauge



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Drawn by Gary Caviglia
July 1988

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SCALE

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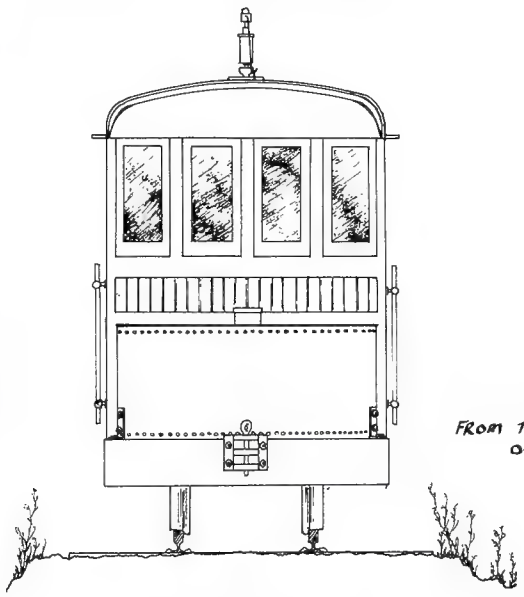
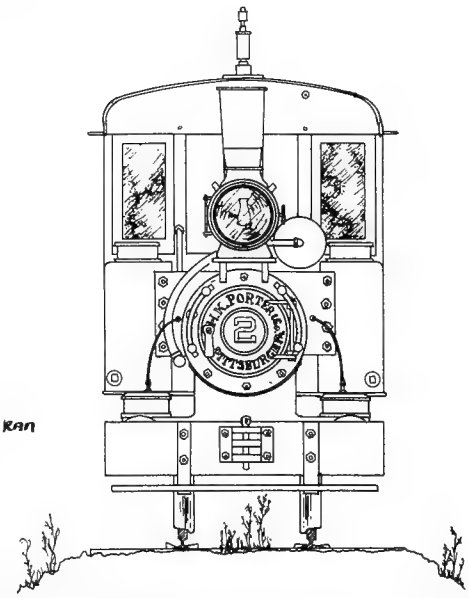
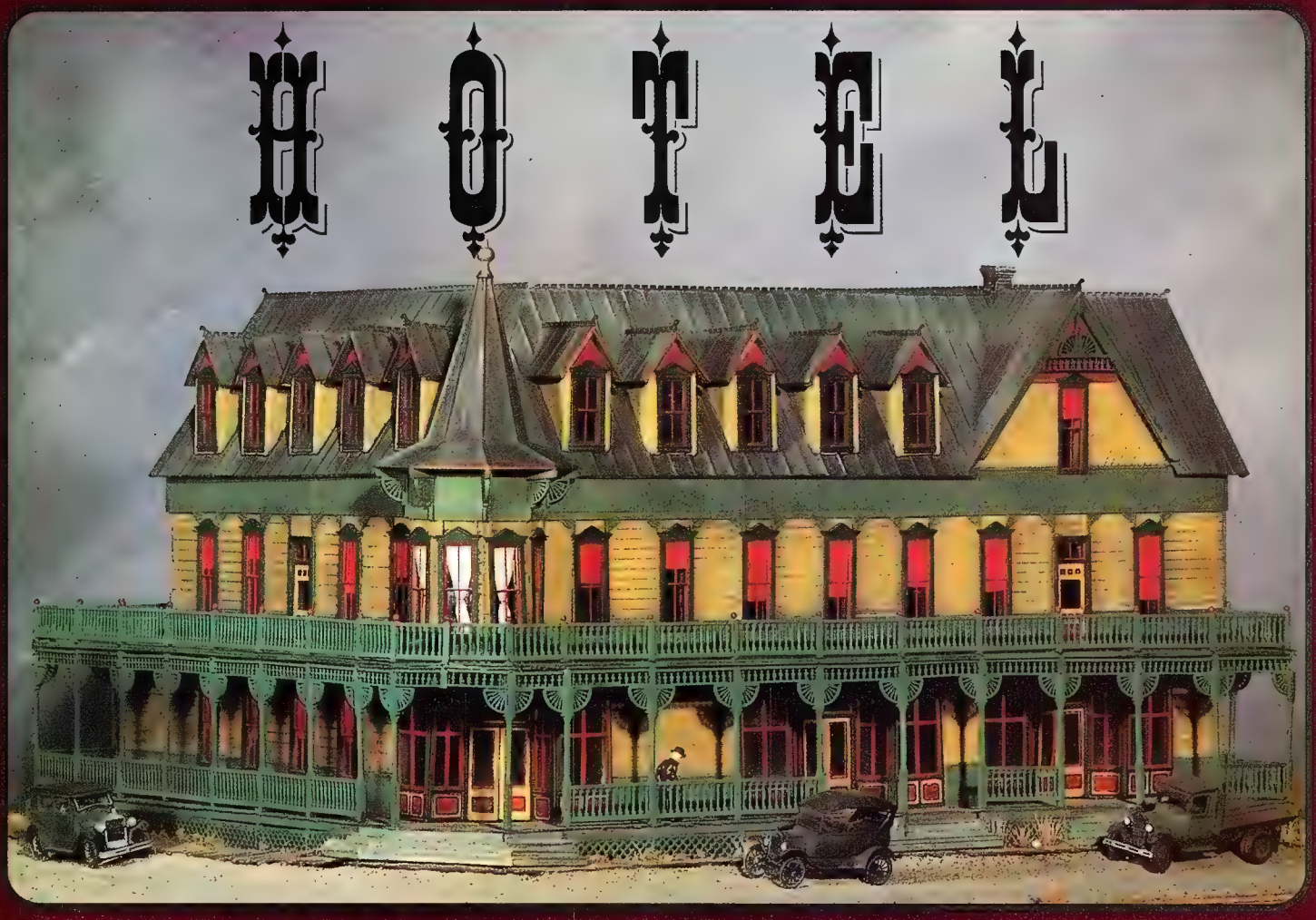
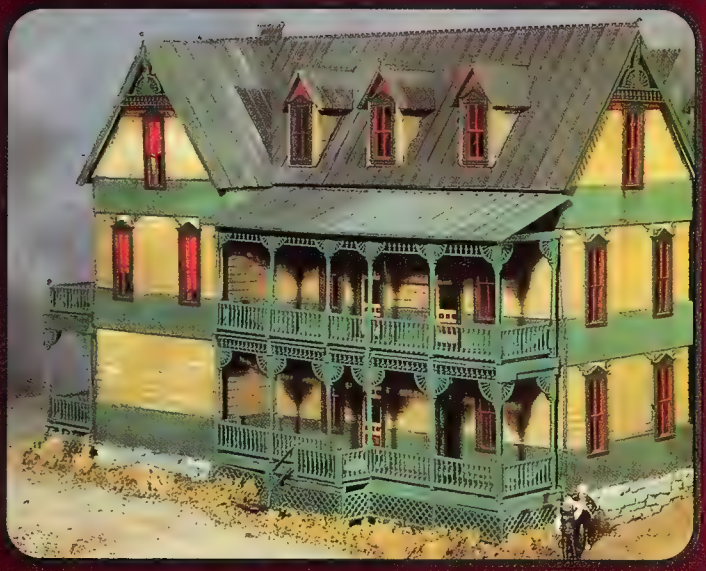




NOTE
FROM 1906 TO 1913, BOTH ENGINES RAN ON THE EMPIRE CITY RAILWAY.

HOTEL





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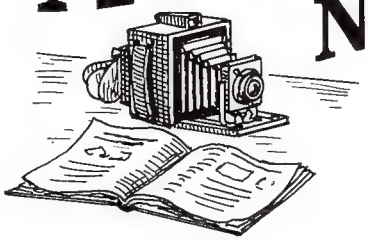


by Al Armitage

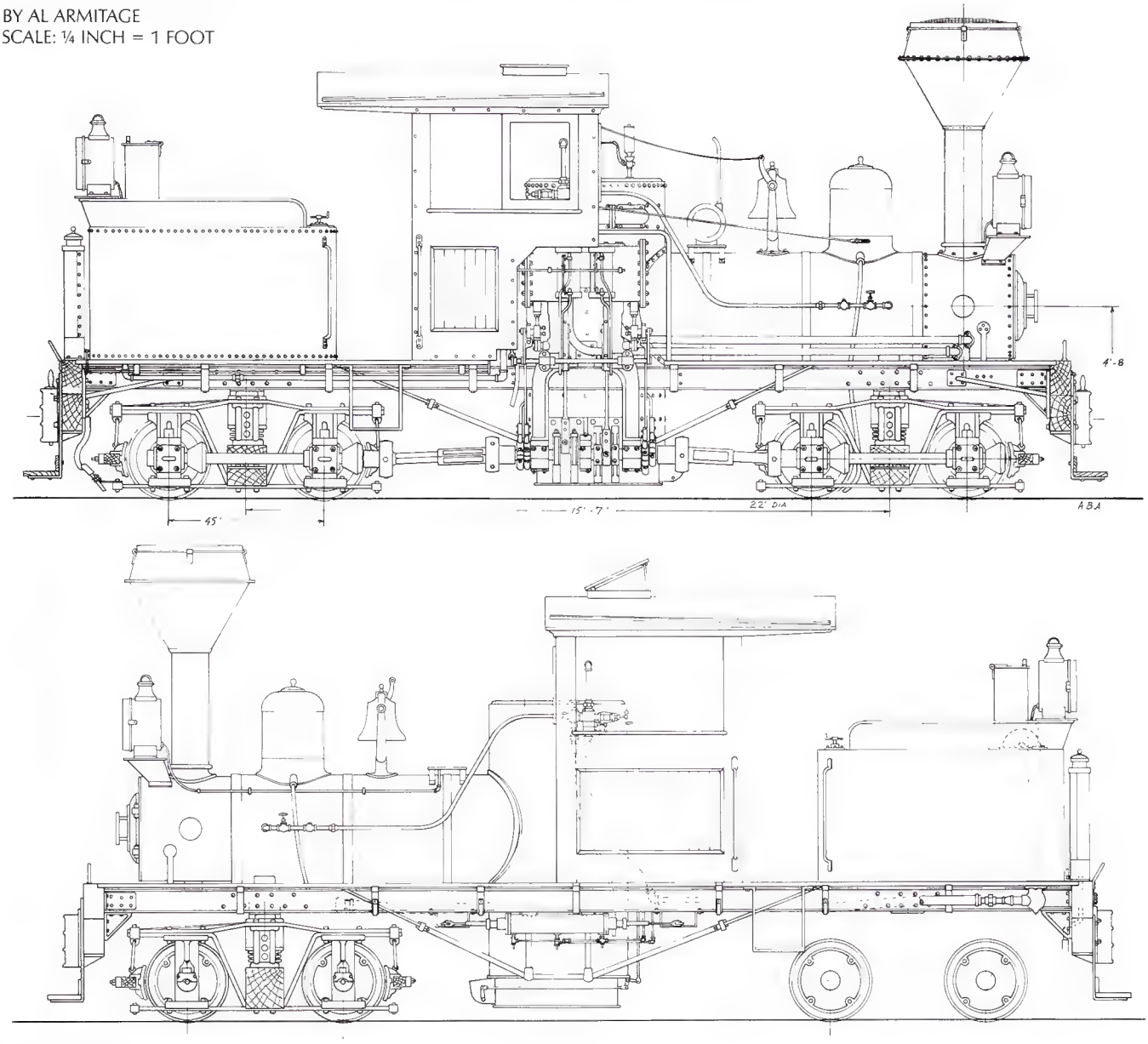
A Vintage Shay in 3-Foot Gauge

Most Shay locomotives were constructed of stock parts – few if any new components were made for any particular Shay except when perodic design changes occurred. For instance, crankcase cylinders soon replaced the bracketed-style cylinders of early locomotives; as Shays grew larger over the years, a third cylinder was added. Early on, tee boilers gave way to straight boilers and wagon-top boilers. Shay trucks got heavier as Shays got larger, and the shape and style of domes changed as time went on.

Nearly all Shays of a given era followed the same basic design, but no two were identical. Due to differences between individual Shays in trucks, cylinders, cabs, or fittings, each was unique, though similar to others of comparable size. Nearly all early Shays were two-truck engines and all of them had I-beam frames with truss rods. Most of them

A 14-TON CLASS A SHAY

BY AL ARMITAGE
SCALE: ¼ INCH = 1 FOOT



burned wood, especially those on logging lines. Several styles of trucks were available in a variety of wheelbases and driver diameters in any gauge from 18 inches to 5 feet. (5-foot gauge Shays were used on "pole roads.") Cylinder size varied according to the size of the Shay. In the early days, Shays had many styles of wood cabs; many of these were still used on new Shays built after the introduction of steel cabs in 1898.

Special features such as Radley & Hunter wood-burner stacks, which used a system of baffles to eliminate sparks, could be ordered and a few Shays were even built with "shotgun" (straight) and capped stacks. Most wood-burners, however, had the standard Shay diamond stack shown in the drawings. These had the usual coarse screen across the top as a spark arrestor. These were not always effective so a number of homemade appliances were added to help control the number of fires started by errant sparks.

Given the task of designing a "prototype" Shay based on Bob Stephens' free-lanced model, I just followed Lima's example and used a bunch of stock parts to design a small, typical Shay of the late 1800s. Bob is completely "hooked" on small engines, thoroughly practical for model railroads, especially for his indoor logging road in ½-inch scale.

Bob's model is a neat example of an 1897 Shay (his date) with lots of interesting extra details, and a really nice weathering job. By "nit-picking" a bit, I could find fault with only a couple of things about his model. To me a 24-inch boiler is too small for a 14-ton engine with 8-inch x 10-inch cylinders, and a vertical firebox the same size as that of a 13-ton Shay. A 30-inch diameter boiler seemed more logical to me, so that's what I drew on my plan. Also, Bob's model seems to have an equalizing tank under it – this does *not* belong with a steam jamb. I kidded Bob about his stack not being standard Shay issue and he talked himself out of that one by claiming the original stack got damaged and was replaced with an available stack from another engine. O.K., I'll buy that this time. Considering that Bob started with nothing but the trucks from a commercial model, and that he had to rebuild those to 3-foot gauge, I'd say that he ended up with a pretty nice model. Never mind my nit-picking – after all, freelance is freelance.

I chose a shorter wheelbase truck (45 inches rather than 51 inches that Bob used) for my plan because shorter wheelbase trucks would allow longer connecting shafts. The longer shafts will be a definite advantage on a model, making it easier for the model to traverse sharp curves, particularly when the jack shaft is on the outside of the curve.

The trucks have wooden bolsters like those on most early Shays, and have four coil springs per truck. The left side journals are not sprung as were those of later versions.

I included a generator on my plan because Bob has one on his model; However, a Shay of this vintage would have been originally built with acetylene lights. The generator would have been a later addition when the lights were converted to electricity. If you prefer the old style on your Shay, simply mount a small

Stillwater Mills #3

A 14-ton Shay

by Robert Stephens

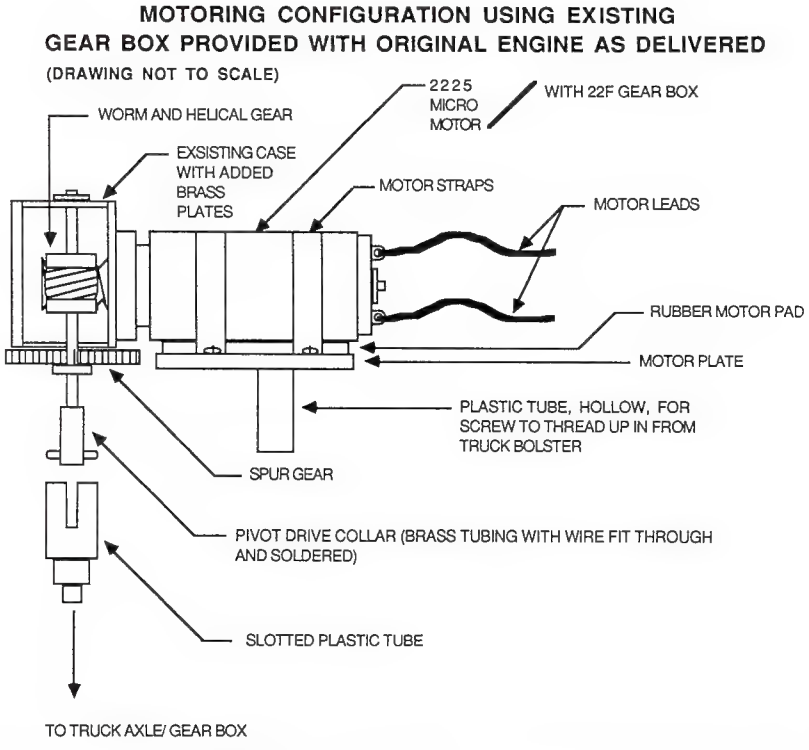
When I decided that a 14-ton Shay would be the perfect "mainline" engine for my ½-inch scale logging line, I decided to base it on a KMT LGB gauge Shay that had been brought out several years ago. If you want to do this conversion, you may still be able to find one of these models in hobby shops around the country. However, let me say that I was disappointed with the KMT model as it was, and decided to completely rebuild it using only the trucks (the best part of the model), parts of the drive, and a few other details.

In order to improve the running qualities of the KMT model I used a #2225 Micro-Motor and a matching 22/2f gearbox with the 9.7:1 gear reduction matched up to the 17:1 gear case on the KTM Shay giving a final gear reduction of 339.6:1. Figure 1 shows how my Shay was re-motored. I added straps and nut and bolt detail to the trucks as well as safety chains, brake beams and shoes, and brake hardware. The trucks were converted to 3-foot gauge by merely pushing in the wheels and cutting off the axles. New journals were made out of telescoping brass tubing and the trucks and bolsters were sprung. The trucks are bolted together so they can be disassembled.

The bracketed cylinder block was built-up as were the T-boiler and cab. Actually, I wound up scratch-building everything on the model except for the trucks, crankshaft, sand dome, and the sand boxes. I tried to add every visible detail and shortened the Shay by about 22 scale inches to give it a better balanced look.

I spray-painted my model with primer, one component at a time and baked the parts in an oven. When the primer was hard, the parts were painted a nice pristine black and re-baked in the oven. When the paint was hard, the locomotive was re-assembled and weathered. The headlight

FIGURE 1: RE-MOTORING A KTM SHAY
DRAWN BY BOB STEPHENS


MOTORING CONFIGURATION USING EXISTING
GEAR BOX PROVIDED WITH ORIGINAL ENGINE AS DELIVERED
(DRAWING NOT TO SCALE)
2225 MICRO MOTOR
WITH 22F GEAR BOX
WORM AND HELICAL GEAR
EXSISTING CASE WITH ADDED BRASS PLATES
MOTOR STRAPS
MOTOR LEADS
RUBBER MOTOR PAD
MOTOR PLATE
PLASTIC TUBE, HOLLOW, FOR SCREW TO THREAD UP IN FROM TRUCK BOLSTER
SPUR GEAR
PIVOT DRIVE COLLAR (BRASS TUBING WITH WIRE FIT THROUGH AND SOLDERED)
SLOTTED PLASTIC TUBE
TO TRUCK AXLE/ GEAR BOX

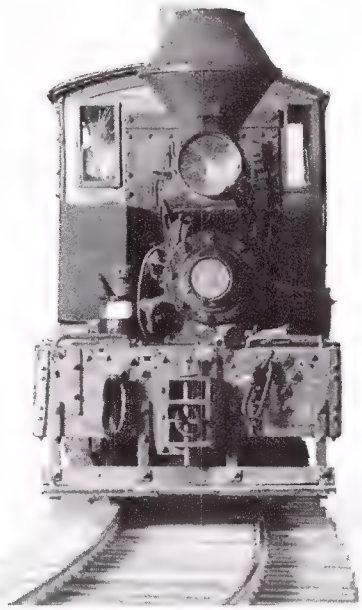
acetylene cylinder on the left side running board, and run piping to the lights. The back-up light is an optional feature. Bob doesn't have one on his model and many prototype Shays didn't either.

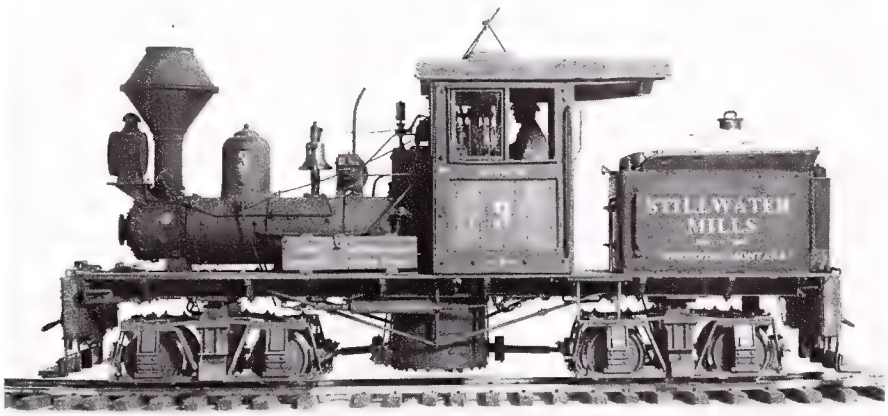
Lima had several different arrangements for exhaust steam pipes to a manifold under the smoke box. For my drawing I chose one of the early versions that employed a separate pipe from each

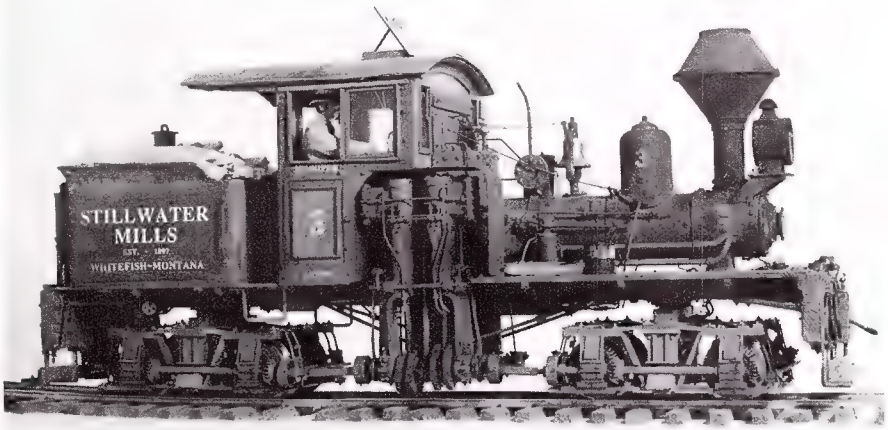
A 14-TON CLASS A SHAY

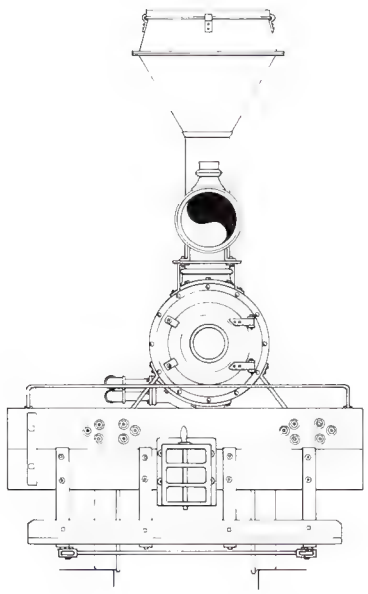
BY AL ARMITAGE
SCALE: ¼ INCH = 1 FOOT

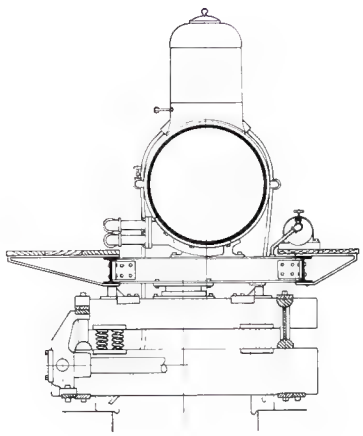
and windows were cracked, and rags and other details were added so the engine looked well used. The roof was covered with real cloth, torn to show wear. Micro Scale decals were used to letter the model and the engineer is a re-worked Preiser figure. The engine has PFM micro lamps and a sound cam. My Shay runs very well, and with all of the springs in the trucks and bolsters, it goes over the rough track on my Stillwater line in a most realistic way, complete with prototype squeals and groans.

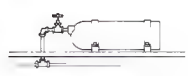




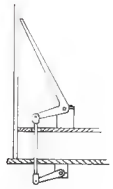








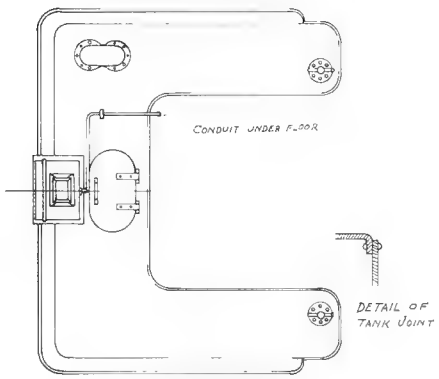
DETAIL OF ACETYLENE TANK FOR LIGHTS

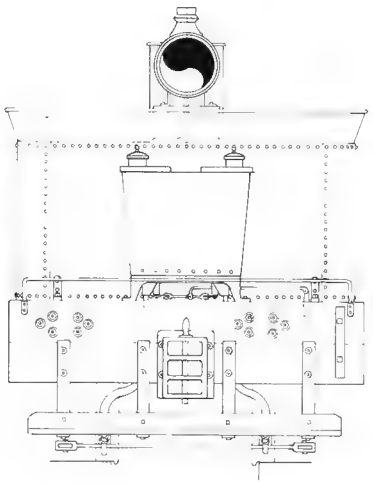


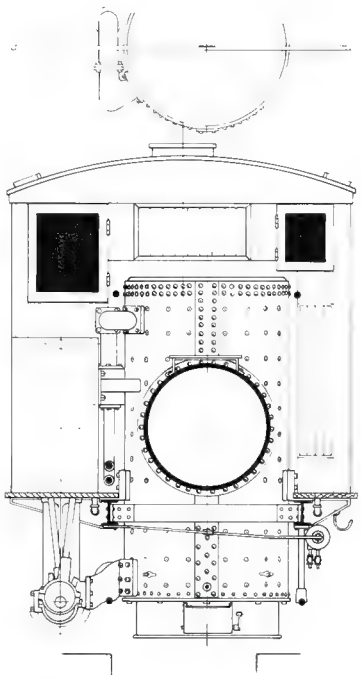
SANDER LEVER (INSIDE CAB)

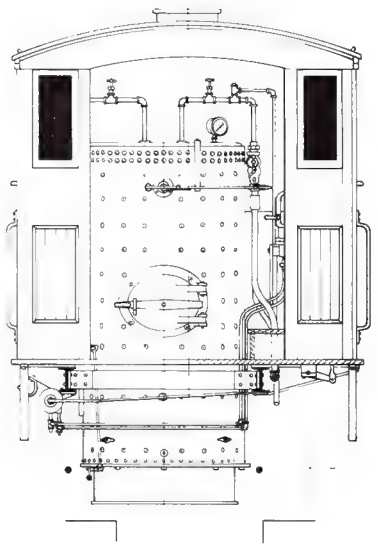
A 14 TON CLASS A SHAY

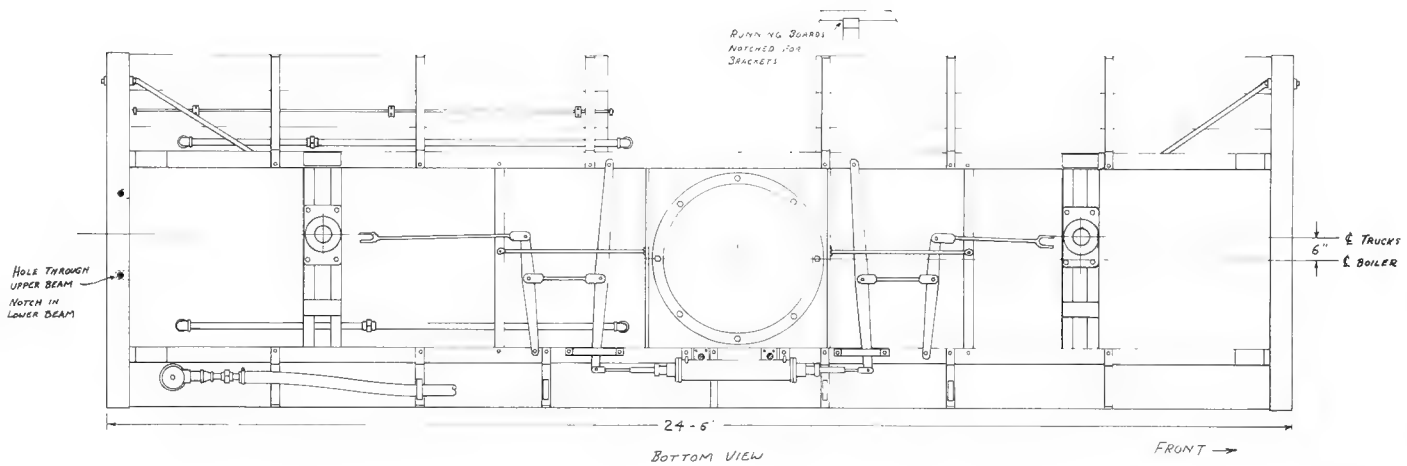
BY AL ARMITAGE
SCALE: ¼ INCH = 1 FOOT











cylinder. The dry pipe too is an early version – one of several styles used by Lima on "tee" boilers. It goes through the cab front and down to the inlet manifold behind the cylinders.

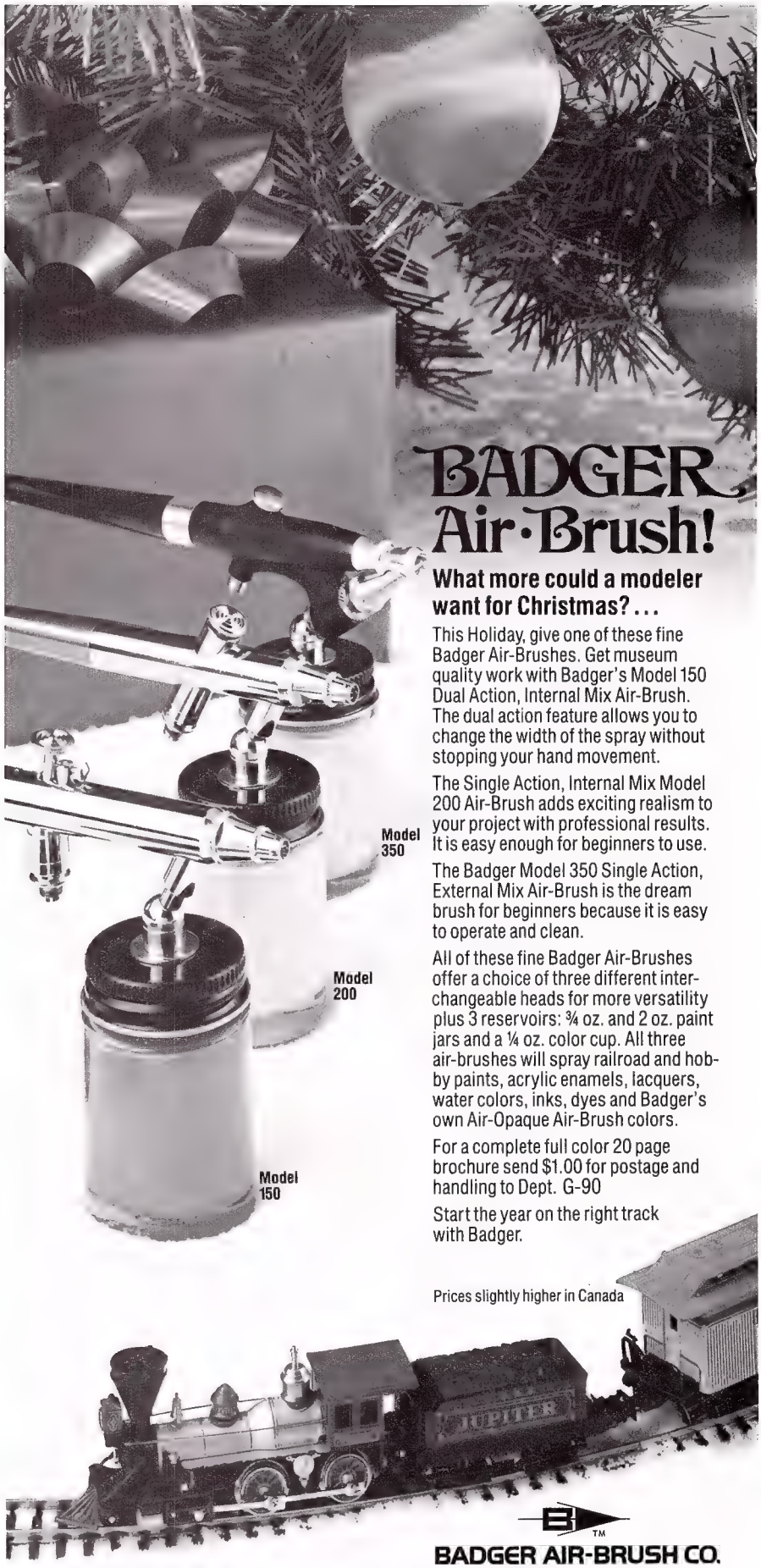
Note that the boiler is jacketed but the vertical firebox is not. This was characteristic of some of the early "tee" boilered Shays that I rather like because of the exposed rivets and staybolts. If you don't agree, you can always put a jacket on your firebox. Also note that the ashpan only clears the rails by about 4 scale inches, so if you plan to run one of these locomotives, allow no tall grass or weeds to grow on your track.

The feeder pipes on the rear sand box go down through holes bored in the endbeam. Although this may seem to be an unlikely arrangement; it was actually done on some prototype Shays. Actually it would be better to move the bunker and sand box forward a few inches, and run the pipes down behind the endbeam. I've shown the sander operating rods on the drawing along with a sketch of the manual operating lever in the cab. I think that these details are seen on far too few models of Shay locomotives and really should be included for a complete model.

I have not drawn such details as tool boxes, buckets, chains, or knuckle couplers etc. I's a matter of personal taste as to what kind and how many of these details you want to include. But as you can see from the photo, they add much to the individual character and interest of Bob's model.

Designing a model like this, following prototype practice, has been a lot of fun for me. I've always been a strong believer in freelancing because it lends a flavor of true individuality to any model railroad. This freelanced Shay would be quite suitable on any line that ran Shays right up through the 1940s. Building one may pose some difficulties. In ½-inch scale, it would be pretty much a scratch-building project from the rails up unless you are willing to "butcher" one of the few available commercial models like Bob did. The other scales, however, have more suitable parts available, and there are a number of commercially available brass imports that are similar enough to be kit-bashed into a close copy of the locomotive in my plan. Remember, it doesn't have to be identical to be legitimate.

AL —o



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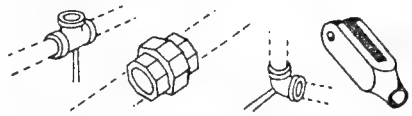

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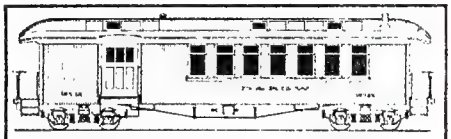

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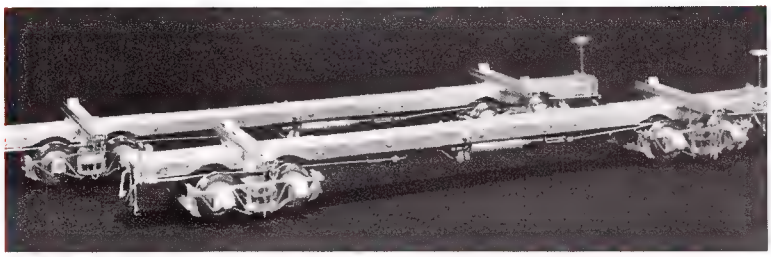

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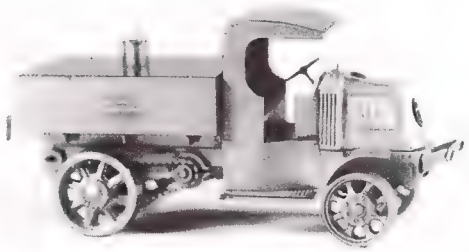

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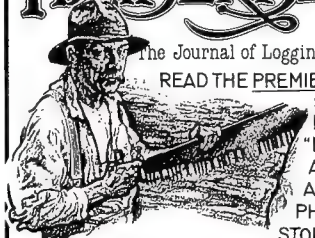

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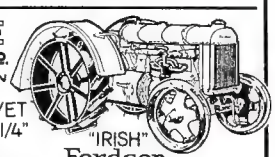

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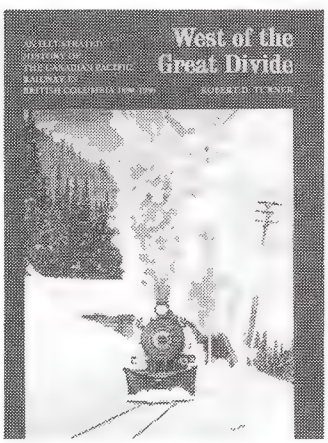

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☐ **SEPTEMBER/OCTOBER 1985** – A Derelict Store in ½-inch Scale, Making Sound Cams Quickly, Easily and Inexpensively, The Sonora, CA Sierra Ry. Station, On30 Combines, a Log Haul, the Stanley Mine Complex near Idaho Springs, Camp 1 and Vicinity, an Unusual Water Tank, Porters on the Maine 2-Footers, the Truckee Jail, Collins & Garrison Shay #349, V&T Carson City Enginehouse.

☐ **NOVEMBER/DECEMBER 1985** – Trackside Signs for Your Railroad, An On3 Freelanced Speeder, The On2 Saco River Railroad, A Model T Railcar in ½-inch Scale, The HOn30 Kingfield, Twinlakes & Maine Railroad, An HOn30 Q&TL Rock Car from a D&RGW Gondola, The Everett & Monte Cristo, Mr. Wilfley and his Tables, a 7-foot Gauge Pole Road Locomotive and Car, The Kahuka, Argent Lumber Co. #5.

☐ **JANUARY/FEBRUARY 1986** – Yosemite Lumber Co. Camp 17 in HO Scale, An Sn2 Porter, Copper in the Mountains, A ½-Inch Scale 18-Inch Gauge Porter, Modeling the Gravity Stamps, Brass Lantern Caboose #0505, The Georgetown Station, Snowplowing Over Diablo Pass, A Welsh Slate Quarry Locomotive Facility, Baldwin Plantation Locomotive, SPNG Combine.

☐ **MARCH/APRIL 1986** – The Buffalo Boy Tram House, Copper in the Mountains, Part 2, Powell's Produce, Part 1, Radio Controlled, Battery Powered LGB, Yosemite Sugar Pine Camp 17, Part 2, Gravity Stamps, Camp Cars for Your Logging Show, a New England Bridge, Baldwin 2-foot Saddle Tanker, West Side Shay #12.

☐ **MAY/JUNE 1986** – Cabooses of the Tionesta Valley, Painting Figures for Model Railroads, Deadwood Central 3-foot Gauge Trolley Car, Lawndale Gondola, The Slim Gauge Guild, The Log Turner, Cabin Cars for Your Logging Show, West Side Lumber Shay #15, Old Missouri Firehouse, D&RG Boxcar 34500, Porter 0-6-0.

☐ **JULY/AUGUST 1986** – The Cairo & Kanawha Ry., An On30 2-8-0, Gilpin Tram Ore Car, Snowplows of the SR&RL, Boilers and Steam Engines, The Caspar, South Fork & Eastern, A Logging Camp Cookhouse, Denver, Boulder & Western Caboose & Colorado & Southern Coach.

☐ **SEPTEMBER/OCTOBER 1986** – Sandy River Flanger, Sn3 RGS, Fixing Up the LGB Mogul, Camp 8 on the Dolly Varden, Narrow Gauge Motor Cars, On3 Drop Bottom Gondola, Angels Camp Branch, C&S Cabooses, Making Log Retaining Walls, A Logging Camp Dining Car, RGS #23.

☐ **NOVEMBER/DECEMBER 1986** – Operation on Logging Railroads, Modeling in 9mm Scale, Crown Mountain Snowplow, An 8-Ton Porter, Making Working Windows, A Narrow Gauge Center-cab Diesel, Stock Loading Chutes, An Office & Commissary Car for Your Logging Show, 30-inch Gauge Pacamayo & Huanchaca Mogul, Virginia & Truckee Combination Boxcar.

☐ **JANUARY/FEBRUARY, 1987** – Trestle Building RGS Style, Climax Log Car, On3 Crown Mt. Winch Car, HOn3 D&RGW Work Car, The Tank at Brockton, The Georgetown Power Co., On3 Logging in P.A., The St. Clair Lumber Co. Woods Mill, Logging in Mason Country, WA, Part 1, Diamond & Caldor Camp & Cabin Cars, Monson RR 2-Foot Snow Equipment, V&T 2-6-0, #19 and #20.

☐ **MARCH/APRIL 1987** – The Gentle Art of Clutter, The Colorado & Southern Connection, Building an On30 0-4-2T, Building Caboose #0578, Wood-Burner Weathering, Reefers on a Budget, The Clear Creek Sampling Works, Logging in Mason County, Part 2, Read Lumber Co. Camp Car, V&T Miners Caboose #9, V&T Water Car.

☐ **MAY/JUNE 1987** – Tower Skidders, Smelters Part 1, On3 Internal Combustion Climax, RGS Plow Flanger in ½-inch Scale, My Carrabasset & Dead River in HOn30, The Merced Gold Mine Porter, An On30 Forney, A Narrow Gauge Circle Tour, The Kemtron Waterfront Diorama Part 1, Body Putty Modeling, S. D. Warren Paper Co. Tram Part 1, D&RGW Track Scale, United Verde & Pacific 2-6-0, V&T numbers 23 and 24.

☐ **JULY/AUGUST 1987** - The Jefferson Depot in ½ Inch Scale, The Buffalo Boy Cable Tram, Why Sn2? An Sn2 Boxcar, Sn2 Conversions, Urethane Foam Scenery, Fugate Lumber Co., Modeling the Georgetown Loop, Part 1, An On3 Four Wheel Steam Crane, PBL 5500 Series Stockcar, D&RGW Grant C-16, V&T McKeen Motor Car #22.

☐ **SEPTEMBER/OCTOBER 1987** - The Rogue River Valley Railway, A ½-Inch Scale Contractor's Diesel for LGB, The Randsburg Barbershop, On3 Uintah Water Car, West Side Lumber Co. Heavy Duty Flatcars, The Spanish Peak Lumber Co., A Diesel Drive Train, The Silver Plume Station, D&RGW Chama Oil House, NPC #21, V&T Motorcar #99.

☐ **NOVEMBER/DECEMBER 1987** - Building C&S Rotary #99200, Building Chama in Sn3, Jefferson, Colorado, Water Tank in ½-Inch Scale, Cousin Jack Mill, Eureka Mill Railroad, Building a West Side Railcar, C&S/RGS Stockcars, Tracing the Bridgton Line, North Pacific Coast #13, Rico Bunk House and Section House, V&T Motorcar #23.

☐ **JANUARY/FEBRUARY 1988** - The Farallones Midland, Coloring Structures with Chalks & Dry Pigments, Kirkfield Crushed Stone Co., A Box-Cab, Gas Locomotive for Tuolumne Forks, HOn3/HO Moose Jaws Lumber Co., Sn3 San Juan & South Park, Two-Foot Freight Cars in ¾ Inch Scale, My Quest for Trees, Falk #1, Riding the Bridgton Line, D&RGW Sheds, Chama, D&RGW C-25, Forks Creek Pump House, Hetch Hetchy Motor Cars #19, 23, 20.

☐ **MARCH/APRIL 1988** - Colorado & Southern Combine #20 in ½-Inch Scale, D&RGW Rail & Tie Car #6051 in On3, Cat and "Kittens," An Old Brick Furnace, Aged Timber the Easy Way, The Rico Coal Pocket, Passenger Cars of the Rio Grande, Part 1, The Silver Plume Station, Falk #1, Part 2, Dolores, CO Water Tank, D&RGW Bunk House, Chama, Hetch Hetchy Railcars #21 and 22, Wiscasset, Waterville & Farmington #6, West Side Heisler #3, Yosemite Short Line Hopper Car, Merced Gold Mine Ore Car.

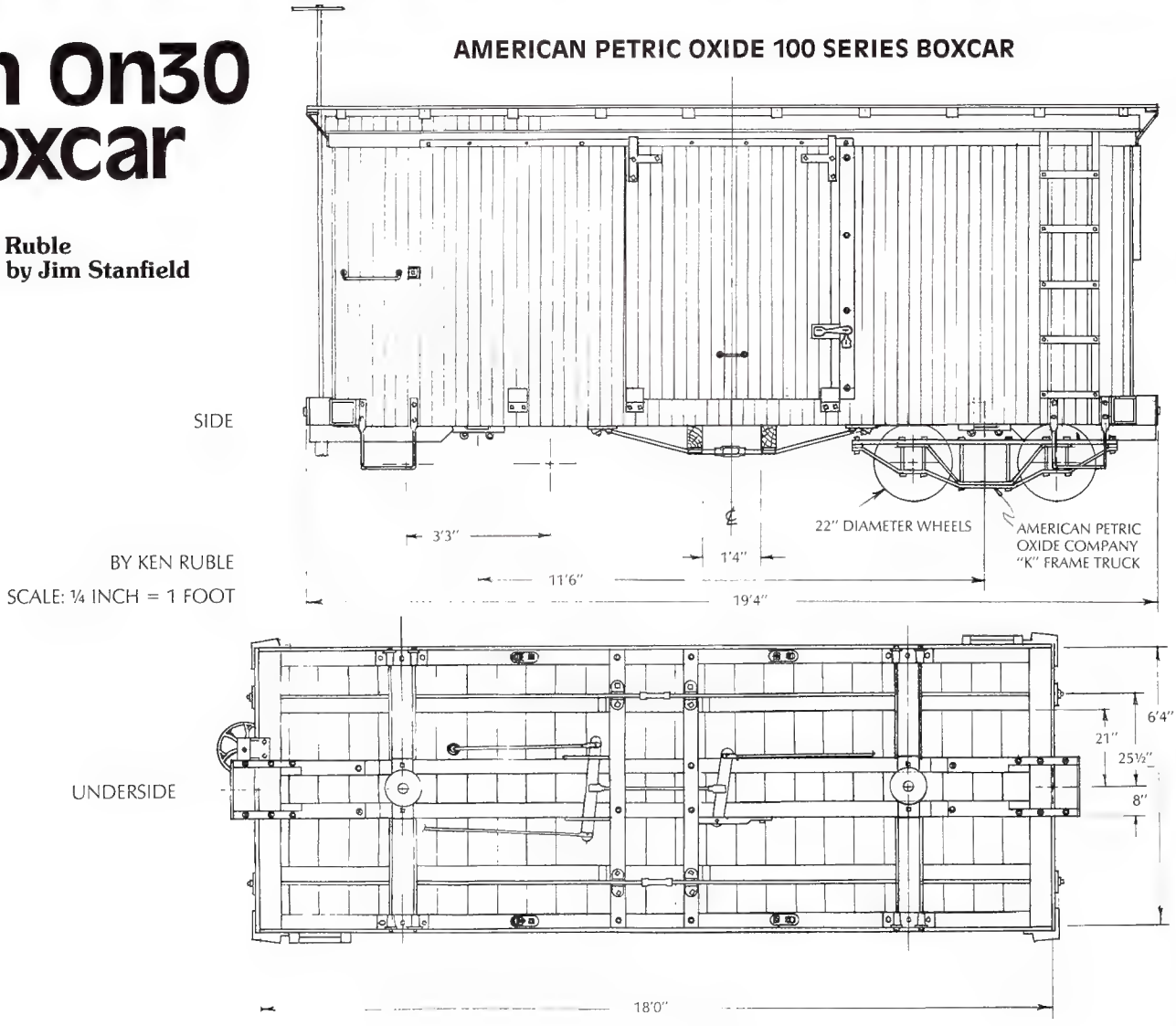
☐ **MAY/JUNE 1988** - The Doane Valley Lbr. Co. Engine House, My On2 Roundhouse, The Backwoods Line of the Franklin & S. Manchester RR, Reliable Carter Bros. Flatcars in HOn3, A Kit-Bashed Rotary Snowplow, The Hull Oakes Lumber Co., My HO Scale Crown Point & Virginia Mine, The Ambledown Valley, The Silver Plume Clock Tower, Passenger Cars of the Rio Grande, Part 2, The Dolores Depot, Yosemite Short Line Flatcar, Hetch Hetchy Motorcar #24, SR&RL #21.

☐ **JULY/AUGUST 1988** - Llareggub, a Working 4mm Scale Diorama, The Sn3 Crested Butte & Southern, Building Wooden Disconnected Logging Trucks, Tuolumne Forks On3 Crew Speeder, Conclusion of the Smelting Campaign, Modeling the Two-footer in ½-inch Scale, Eureka Nevada 2-6-2. Godchaux 2-6-0, Yosemite Short Line 30-inch Gauge Coach.

☐ **SEPTEMBER/OCTOBER 1988** – Modifying Figures, The Isthmus Transit Railroad, Mich-Cal #2 in Sn3, The Glover Brothers Motor and Cycle Garage, A Trip on the UC&N Clear Creek Line, The C&S Runs Again in Central City, Passenger Cars of the Rio Grande, Part 4, An Old Time Fire Engine, The Engine that Never Was, Hetch Hetchy and Sierra Ry. Railcars, D&RGW Coach/Caboose #303, Oahu Ry. Boxcar #358.

An On30 Boxcar

by Ken Ruble
Photos by Jim Stanfield

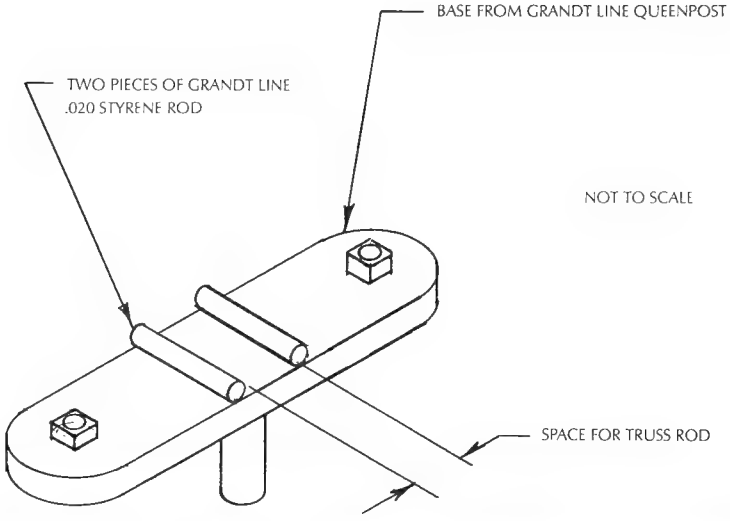


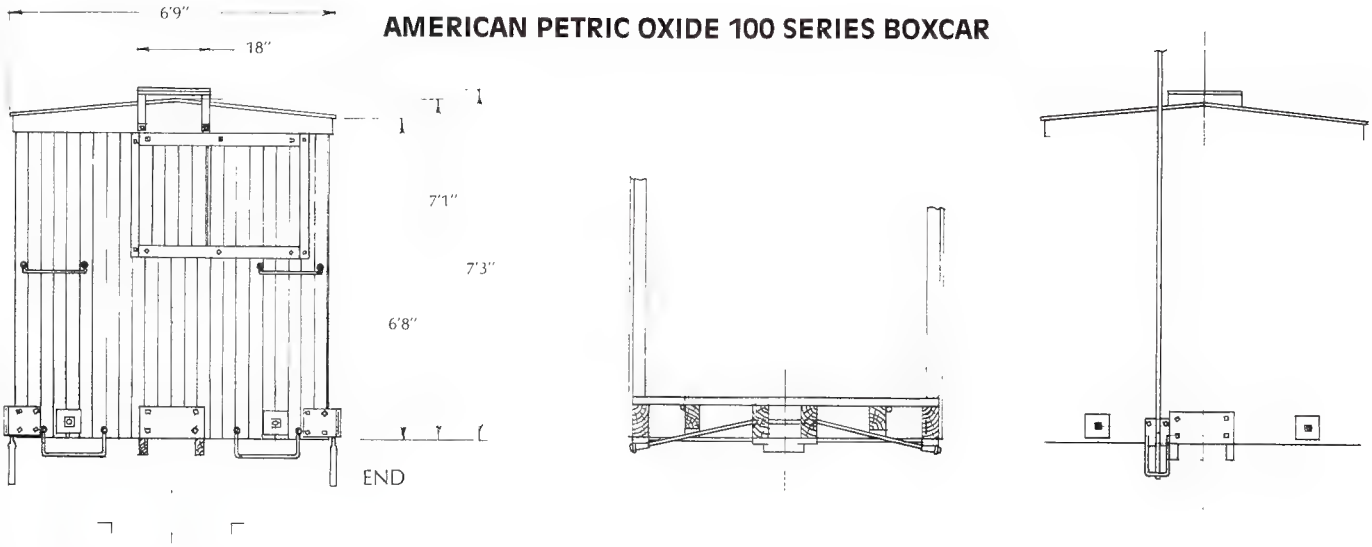
This little On30 boxcar is not a model of any particular prototype – its details and design are my own. But its length and width are based on the Yosemite Short Line boxcar now being used for storage near the engine shed of the Sierra Railway in Oakdale, California. (A plan for that car was published in the November/December 1983 **GAZETTE**, which is out of print.)

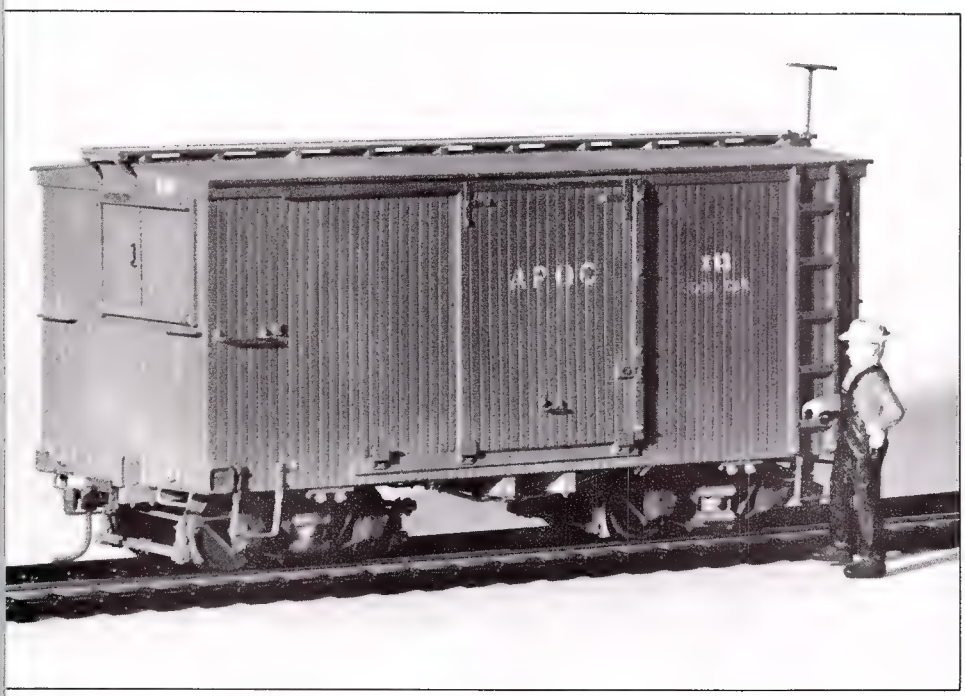
This ¼-inch scale boxcar is of a style built in the 1880s. Mine has miraculously survived fifty years of operations and now in the 1930s runs through the California Desert on my 30-inch gauge American Petric Oxide Corporation Railroad. The APOC had a whole series of these boxcars and this one, now a tool car, is the last to run on the line. All the rest are now storage sheds or lineside structures.

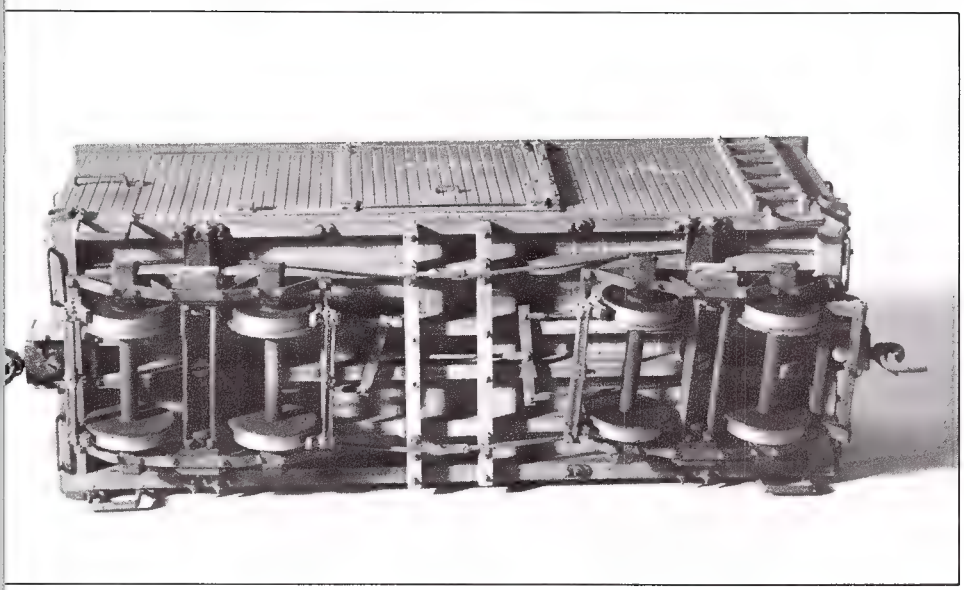
I made my boxcar sides a bit lower than those on the YSL car so they would fit Denver, South Park & Pacific ladders from Coronado Scale Models. It's interesting to

Figure 1









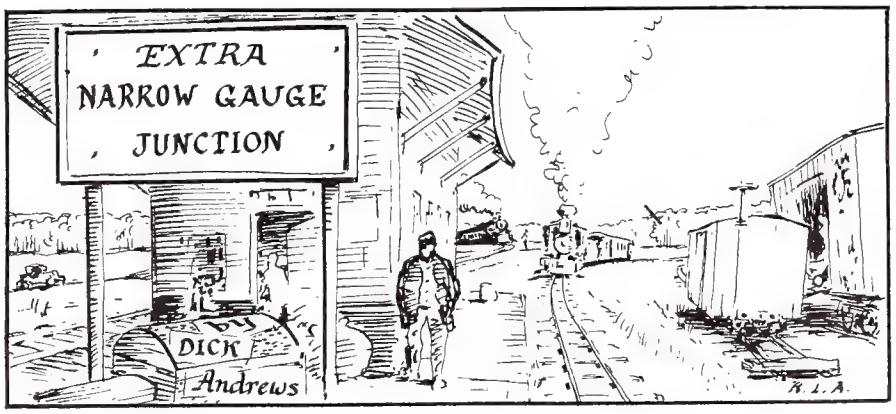
note that, since I had to lower my sides to fit these ladders, the 30-inch gauge YSL boxcar must have been taller than the 3-foot gauge DSP&P boxcar.

The trucks on my boxcar are Coronado Scale Models Denver & Rio Grande 1871 freight car trucks (#TR-122) with Coronado On30 bolsters (#GB-108). The journals were drilled out with a #40 drill for Northwest Short Line HO gauge 40-inch wheel sets. (These wheels make a perfect 23-inch diameter wheel in ¼-inch scale.) I had to place some thin nylon washers over the ends of the axles to insulate them electrically.

Most of the detail parts on my car come from either Coronado Scale Models or Grandt Line. The only exceptions are the queen posts which had to be built-up because all the commercial ones were too long. A drawing for one of my queen posts is shown in Fig. 1.

The rest of my boxcar was built from styrene treated to look like wood as described in my article on the Randsburg Barber Shop in the September/October 1987 **GAZETTE**. The metal parts were painted a dark rusty color using Humbrol paints.

Designing and building this car was just about the most fun I've had in a long time because it fits in so well on my desert mining and general freight line. It has a logical reason to be on my railroad and looks completely plausible. I have designed several more cars that don't model an exact prototype, but just seem to fit in on my line, and I hope to share them with you in future articles. Adios, muchachos.



by Dick Andrews
Photos by the author

Dual gauge is always interesting but it is seldom a necessity, on either prototpye or model railroads. When standard and narrow gauge railroads meet they usually draw up parallel to each other and passengers walk across a platform from one train to the other. Meanwhile freight is handled, hefted, or shoveled from car to car on parallel sidings. The Maine 2-footers operated without dual gauge except for a very short bit that let standard gauge gondolas discharge coal into the coaling shed at Bridgton Junction.

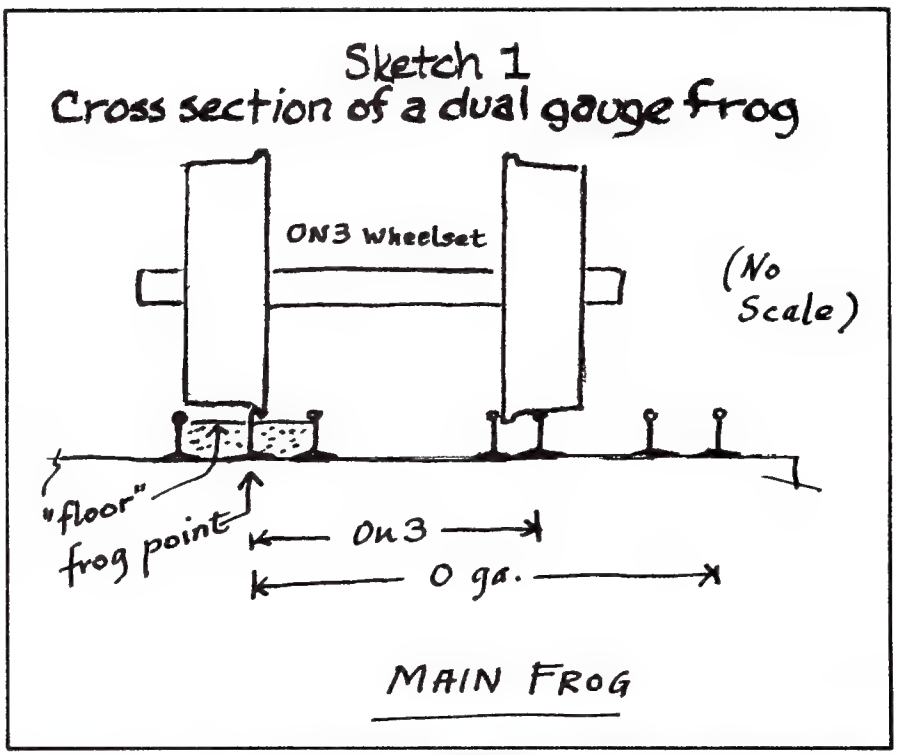
However, some notable amounts of dual gauge did exist on the Denver & Rio Grande Western and the East Tennessee & Western North Carolina. The ET&WNC had some eleven miles of dual gauge out of Johnson City that served rayon mills. They had a hefty narrow gauge Brooks 0-8-0 that shifted standard gauge cars into the mills. Both of these dual gauge operations were gradually phased out over the years as the narrow gauge lines were removed. However, dual gauge could get more track into a given space, so it was a nice option to have.

The gang that pioneered On3 some forty-five years ago built their own models from scratch. Practically all of these pioneers, such as Jack Alexander, Vince Ryan, Kirke Comstock, Ted Collins, John Maxwell, Mark Swerdfeger and others were in O gauge but they were aware that smaller narrow gauge equipment had to have narrow wheels to fit up into the car bodies and the track had to accomodate both the O gauge wheels and the narrow gauge wheels. So they built their dual gauge turnouts using the NMRA O scale standards. But why didn't the narrow On3 wheels fall into the wider O gauge frog gap? There were two reasons. One is simply that a fair bit of the gap isn't there for the On3 but is for the larger O gauge wheel and that the added narrow gauge rail is there to accomodate the On3 wheels. It hold the wheelset over where it belongs. This shows in sketch 1.

The other factor is that the flangeways were filled up or floored to suit the shallower depth of the narrow gauge wheel. The floor could be brass sheet or solder that has been filed to the correct depth. The result is no trouble with the narrow gauge wheels crossing the frogs. Note that the guard rail at the frog, as shown in my sketch, is only used by the On3 wheel and is spaced at On3 gauge. No problem, the O gauge does not run along that rail. So building a dual gauge turnout means using a set of narrow gauge trucks and a set of standard gauge trucks with the full size flanges used years ago, to make sure your dual gauge turnouts are smooth. If you are using the fine scale ¼AAR or now Proto:48 wheels the flangeways can be the same.

The real complication in a full dual gauge turnout is at the points. When thrown for the main line two of your points on one side must kiss together, each with its own stock rail. Moreover, you have to insulate the points from one another which is trickier than a regular one gauge turnout.

Photo 1 shows my dual gauge turnout. I used micarta for the tie rods.The points were held down with 1-76 screws which run through little tabs and into tapped holes in the micarta. The photo shows my turnout with the two different gauge trucks in place. If you want to try a dual gauge turnout, just keep the standard and narrow gauge trucks on hand and have a go. As Mark Twain once said about the music of



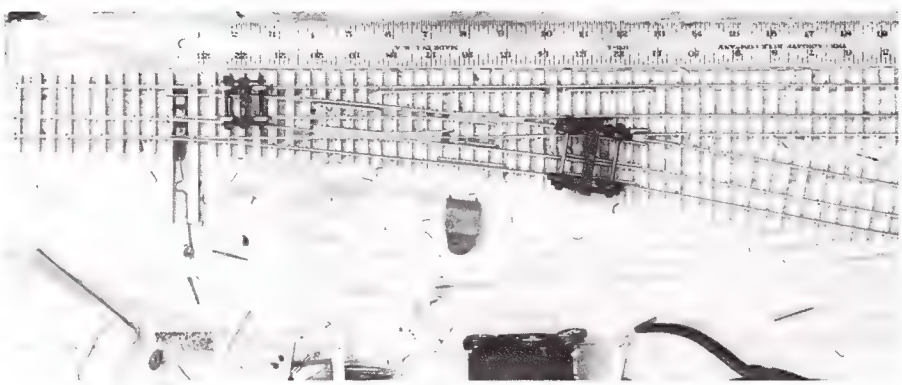


Photo 1

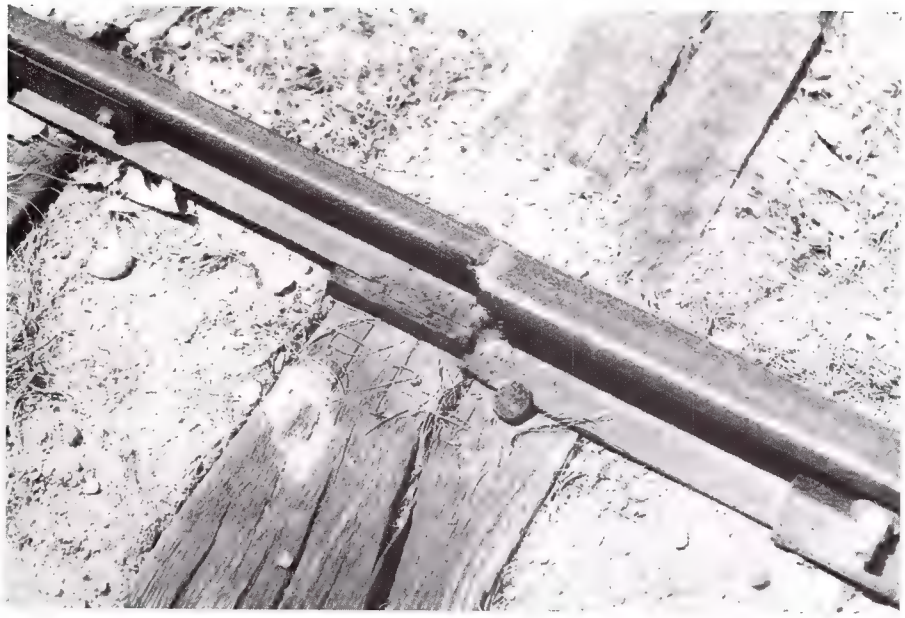


Photo 2

Wagner, it is really better than it sounds – and easier.

In my last column I mentioned that the Sandy River & Rangeley Lakes Railroad still legally exists. Moreover, a 2-foot gauge line is operating out of Phillips, Maine on the first and third Sundays of each month until November. This line runs a half-mile from the northern abutment of the old wooden covered bridge which once crossed the Sandy River to a road crossing. If you drive out of Phillips by crossing the Sandy River on the concrete bridge off the end of Main St., and then instead of turning right, go east to Strong, you go north right up a hill. You will soon encounter the far end of this little pike and can park your car and get a ride.

The little Saunders station sits by the road crossing. The line of track is laid right on the old roadbed and is a mixture of 35 lb. and about 60 lb rail. Photo 2 shows a joint between the two sizes of rail.

Photo 3

Photo 3 shows the the new bridge that is actually sitting on old abutments. The rails came from various local mills where they were used as drying racks for sawn lumber.

Photo 4

Photo 4 shows what must be the ultimate in boxcar weathering. Fifty winters of being dunked in Maine snows have left the bottom of this car rather "tender."

Photo 5 shows a new Sandy River caboose under construction. The photo was taken just about where the turntable sat by the stone engine house built for the Phillips & Rangeley Railroad, called the "stone fort." I hope that this car will be in operation soon.

Photo 6 shows the Phillips station on this little pike with Coach #18. When the SR&RL was scrapped several of the passenger cars were purchased by local resi-

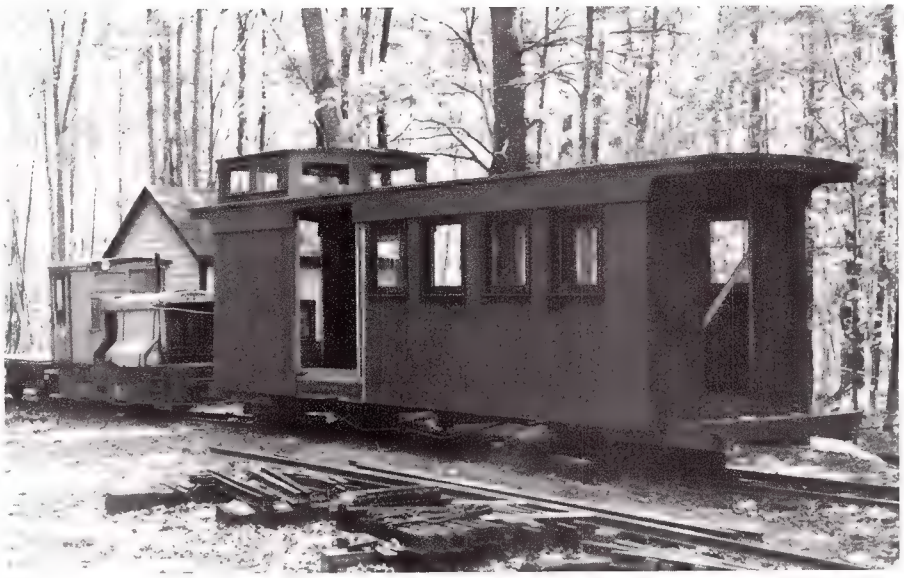


Photo 5

dents. Number 18 was one of these and was kept in good condition by her owners.

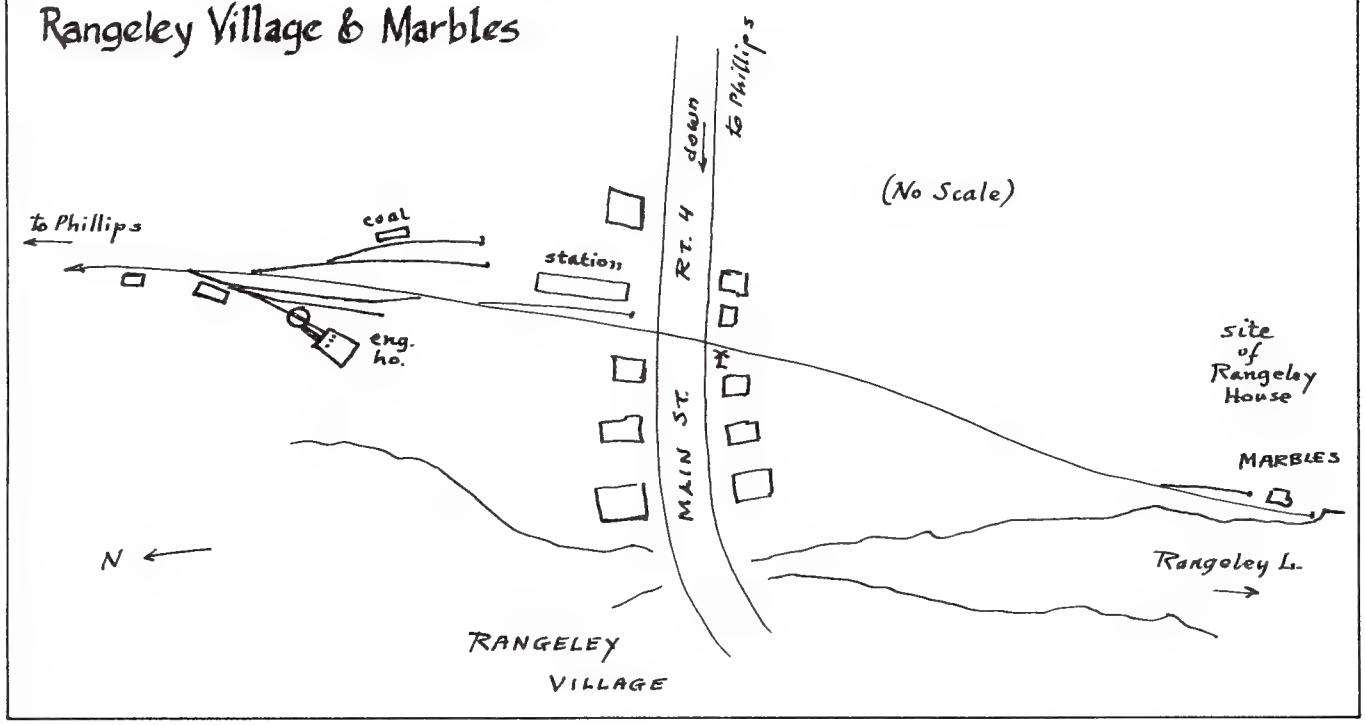
Photo 7 shows a new creation – a recently built SR&RL pumpcar.

In my last column I described Phillips. The next place to visit is Rangeley, so drive up Main St. and onto Route 4 which runs up the west side of the Sandy River. You will quickly be in deep woods and hills and after Madrid (pronounced MAD-rid) the old roadbed swings off to climb up into the wooded stands around Redington while Route 4 sets off for Rangeley. As you go along you will eventually come to an open hillside looking out at a great big shining lake. The little town that lies below is Rangeley.

Brake carefully as you drop down the hill into town, for off to your right, away from Rangeley Lake, will be a small inconspicuous tank farm set back from the road.(see Photo 8 and my sketch of Rangeley). This is the site of the old Rangeley yard and station. If you know your Maine 2-foot history you know there is one more stop to be made – at Marbles.

The old Rangeley House is gone and there are now condos in its place. It is hard to spot the old 2-foot spur from Rangeley across the street toward the lake. But you will find the Marble station which is now a lakeside cottage.

Photo 6



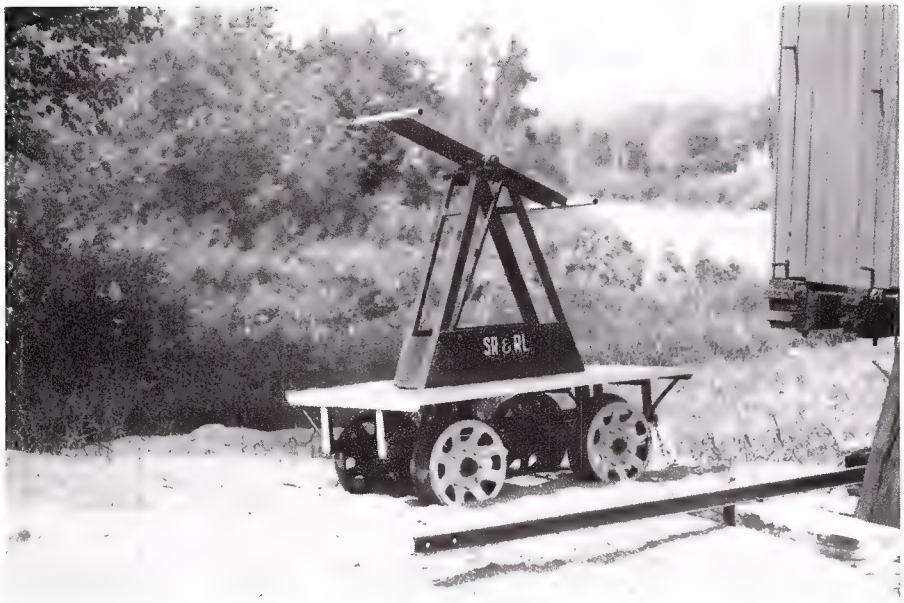


Photo 7

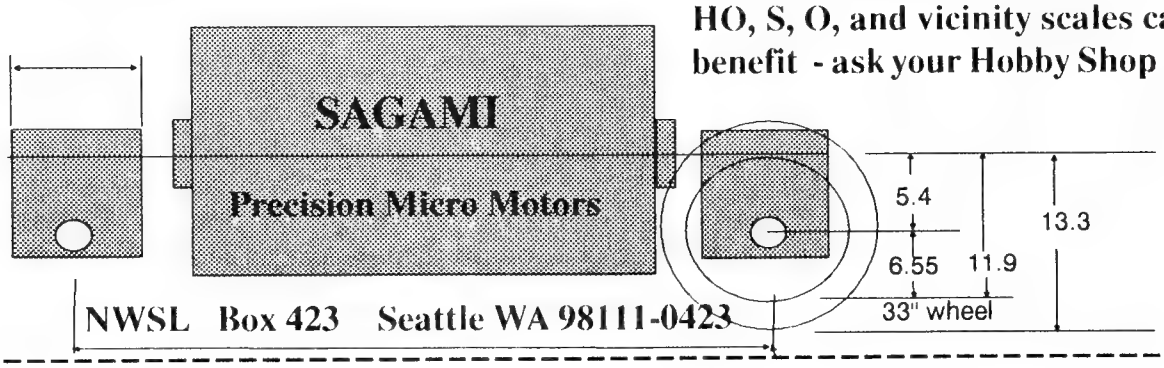
If at this point in your trip you plan to return to southern Maine, consider driving on to Oquossoc, west of Rangeley, and then turning south on Route 17 to Rumford. This is the route of the long-gone standard gauge Rumford Falls and Rangeley Lakes RR and will give you an exciting view from a high point over the lakes to the west.

Dick

Photo 8

YOU WANT TO DO **WHAT?** Better look in your NWSL catalog for the components!

HO, S, O, and vicinity scales can benefit - ask your Hobby Shop today.



NWSL Box 423 Seattle WA 98111-0423

GAZETTE GALLERY

by Bob Brown

Here is a list of the winners in the model and photo contests at the Eighth National Narrow Gauge Convention in Wilkes-Barre, Pennsylvania, (August 17-20, 1988). I want to thank Ray Priester for providing me with the list of winners, chosen as always by popular vote of the convention attendees. There were also a number of special awards presented (see "Robert's Ramlings"). One model that won a special award is pictured here – the **GAZETTE** Award, presented to the model I selected as most typifying the spirit of narrow gauge railroading. I'm really sorry that I only have room to show photos of the first place winner in each category since there were so many fine models in the contest. Congratulations to all of the winners and my apologies to Jim Johnson (First Place in Freight Cars) because I was unable to get a photo of his model.

EIGHTH NATIONAL NARROW GAUGE CONVENTION WINNERS

MODEL CONTEST

BEST OF SHOW
Jim Kulchar for his HO scale town of Shuksan and its 3-foot gauge railroad.

STEAM LOCOMOTIVES-ROD
First place: ½n3 2-6-2 by Jeff Saxon.
Second place: On3 K-27 by Jack Holl.
Third place: On3 0-4-2T by Jim Barron and Bill White.

STEAM LOCOMOTIVES-GEARED
First place: On3 vertical boiler Shay by Rich Royce.
Second place: Sn3 Mich-Cal Shay #2 by Vincent Pellitteri (see September/October 1988 **GAZETTE**).
Third place: On3 Climax by Bruce Saylor.

DIESEL AND OTHERS
First place: On3 railcar by Terry Saxon.
Second place: On3 railcar by Bill Miller.
Third place: Sn3½ Canadian National Diesel by David Steer.

FREIGHT CARS
First place: On3 Denver & Rio Grande Western stockcar by Jim Johnson (no photo).
Second place: ½n3 stockcar by Dave Daniels.
Third place: Sn3 gondola by Lee Kliedon.

PASSENGER CARS
First place: ½n3 combine by Dave Daniels.
Second place: On3 coach/caboose by John Derr.
Third place: On3 business car by John Derr.

CABOOSES
First place: On3 Denver & Rio Grande Western caboose by Roger Belanger.
Second place: On3 freelance caboose by Dennis McCoy.
Third place: On2 Sandy River & Rangeley Lakes caboose #556 by Gary Kohler.

MAINTENANCE OF WAY
First place: ½n3 ditcher by Jeff Saxon.
Second place: On3 derrick OP by Bill Reese and Frank Hickson.
Third place: HOn3 ditcher and auxiliary car by John Ciambriello.

STRUCTURES
First place: HO scale rock bunker by Robert L. Grimes.
Second place: HO industrial building by Robert A. Mitchell.
Third place: S scale Empire Feed & Seed Co. by Dwayne Easterling.

DIORAMAS
First place: HOn3 Town of Shuksan (also Best of Show) by Jim Kulchar.
Second place: HO scale twin sawmill complex by Steve Blackson.
Third place: S scale Argo ore chutes by Larry Nyce (also won **GAZETTE** Award and P-B-L Award).

MODULES
First place: On30 sawmill by Steve Fisher (also won Best Module)
Second place: Mapleleaf Mafia Diorama by Gary Cornwell.
Third place: HOn3 EBT modules by Richard Schweiger.

PHOTO CONTEST

BEST OF SHOW PHOTO
Duane Danielson for his color model photo of Rio Grande Southern #454 at Ophir.

BLACK AND WHITE PROTOTYPE
First place: Cass Shays by Richard Marcus.
Second place: First steam on Georgetown Loop by Dwayne Easterling.
Third place: White Pass & Yukon Diesel by C.E. Mulvihill.

COLOR PROTOTYPE
First place: Morning train out of Chama by Jerry Carson.
Second place: Silverton Run by Dwayne Easterling.
Third place: Cass Shays by Rich Marcus.

BLACK AND WHITE MODEL
First place: Colorado & Southern C&S Mogul by Jim Wild.
Second place: Denver & Rio Grande Western #375 passing water tank by Frank Czubryt.
Third place: Wiscasset, Waterville & Farmington #4 by Peter Barney.

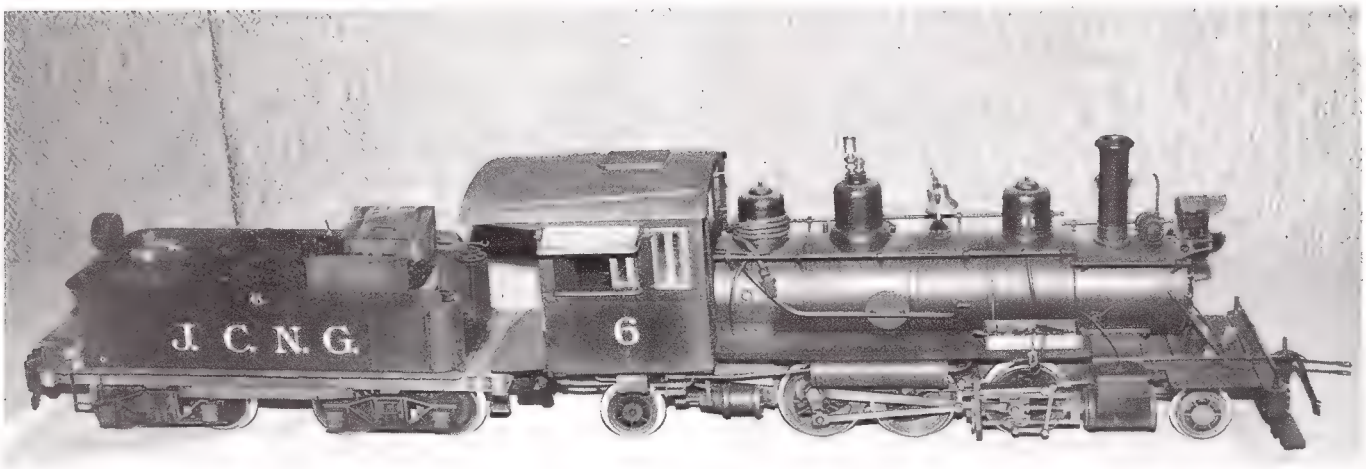
COLOR MODEL
First place: Rio Grande Southern #454 at Ophir by Duane Danielson. (Duane also won Best In Show Photo)
Second place: Colorado & Southern #9 by Jim Wild.
Third place: Lone Horse Mill by Dwayne Easterling.

GAZETTE AWARD

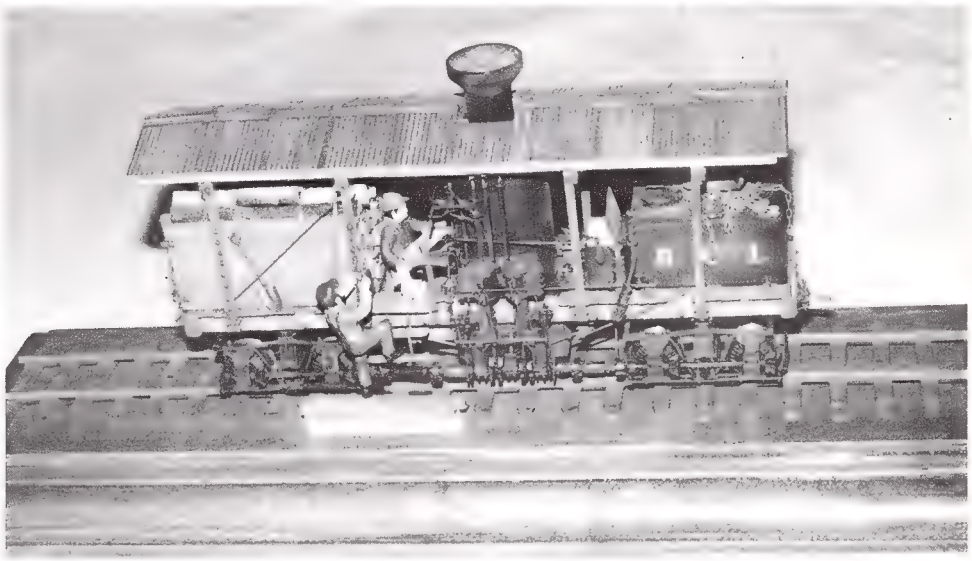
THE GAZETTE AWARD
Larry Nyce with his S scale Argo ore chute.

BEST IN SHOW/DIORAMAS

THE BEST IN SHOW AND FIRST IN DIORAMAS
Jim Kulchar's HO scale town of Shuksan and its railroad.

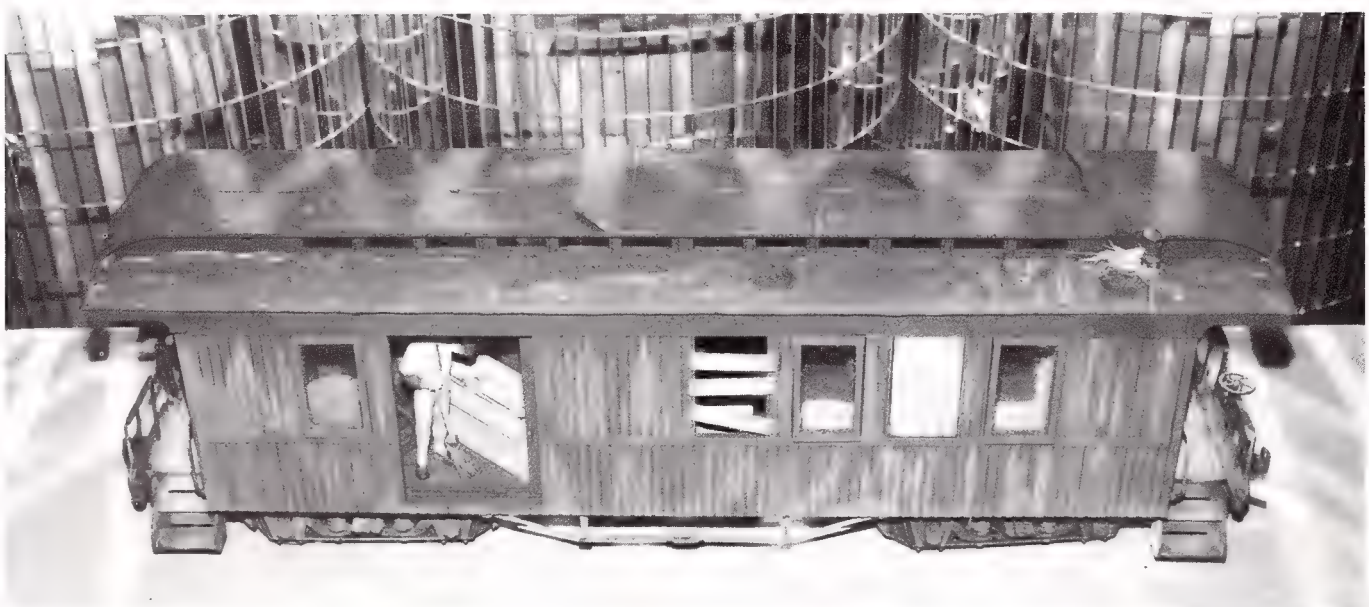


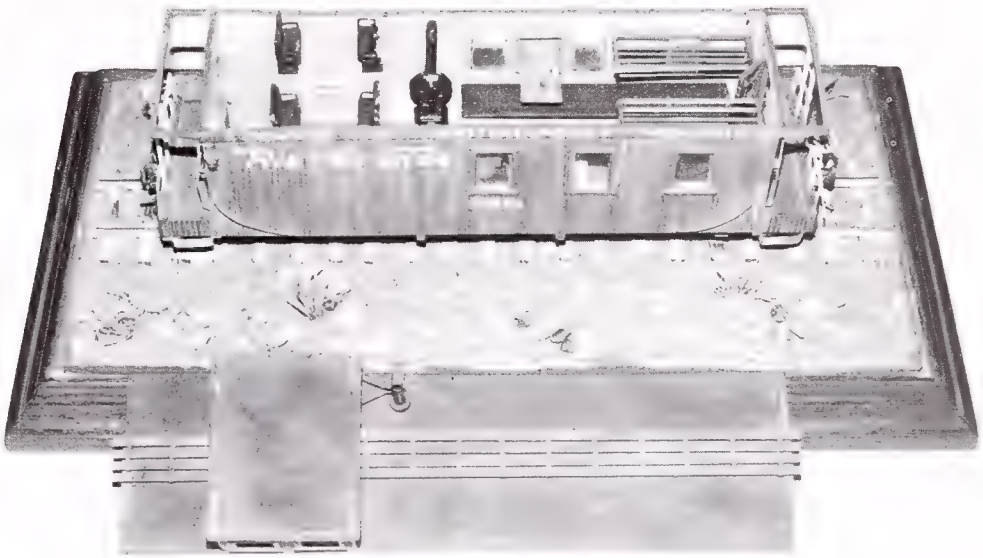
STEAM LOCOMOTIVES – ROD
Jeff Saxon's ½n3 2-6-2.



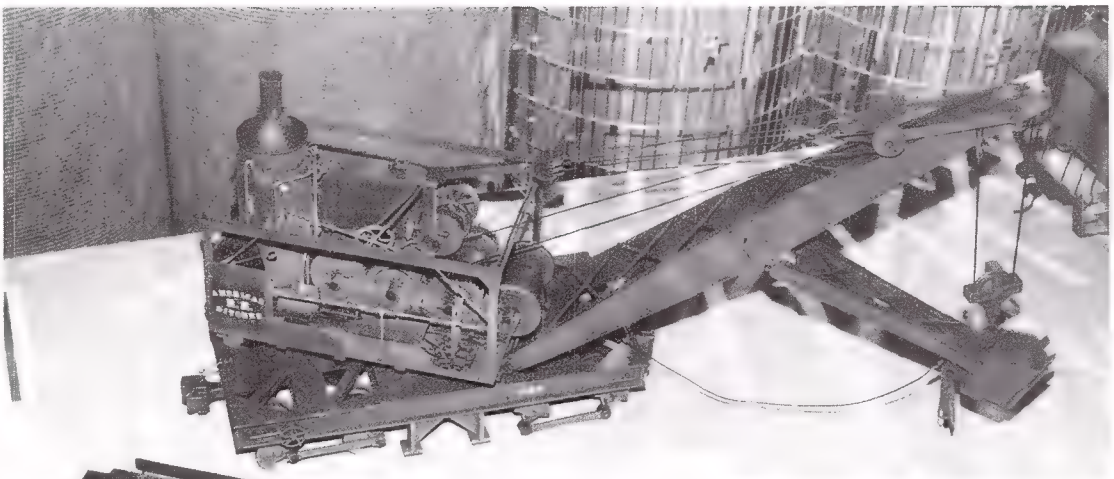
STEAM LOCOMOTIVES – GEARED
Rich Royce's On3 vertical boiler Shay.

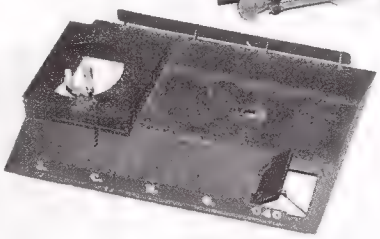
PASSENGER CARS
Dave Daniel's ½n3 combine.



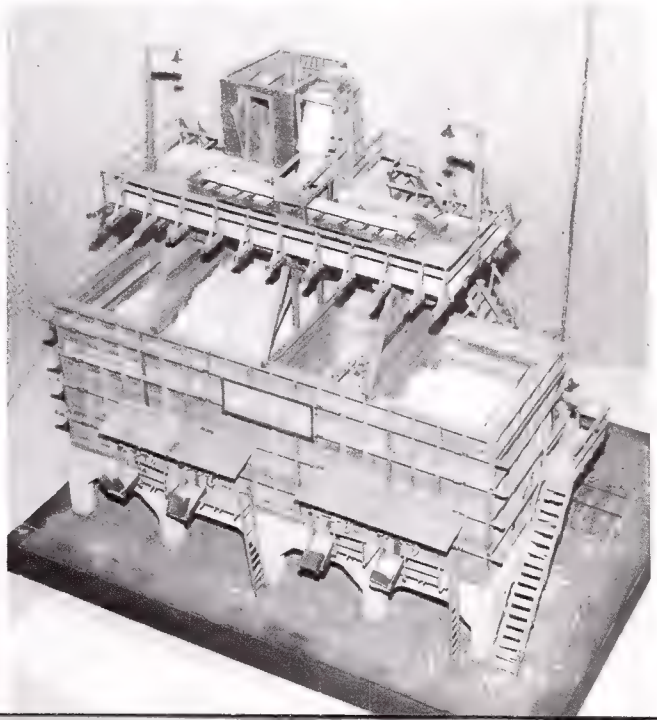


CABOOSES
Roger Belanger's On3 Denver & Rio Grande Western Caboose.



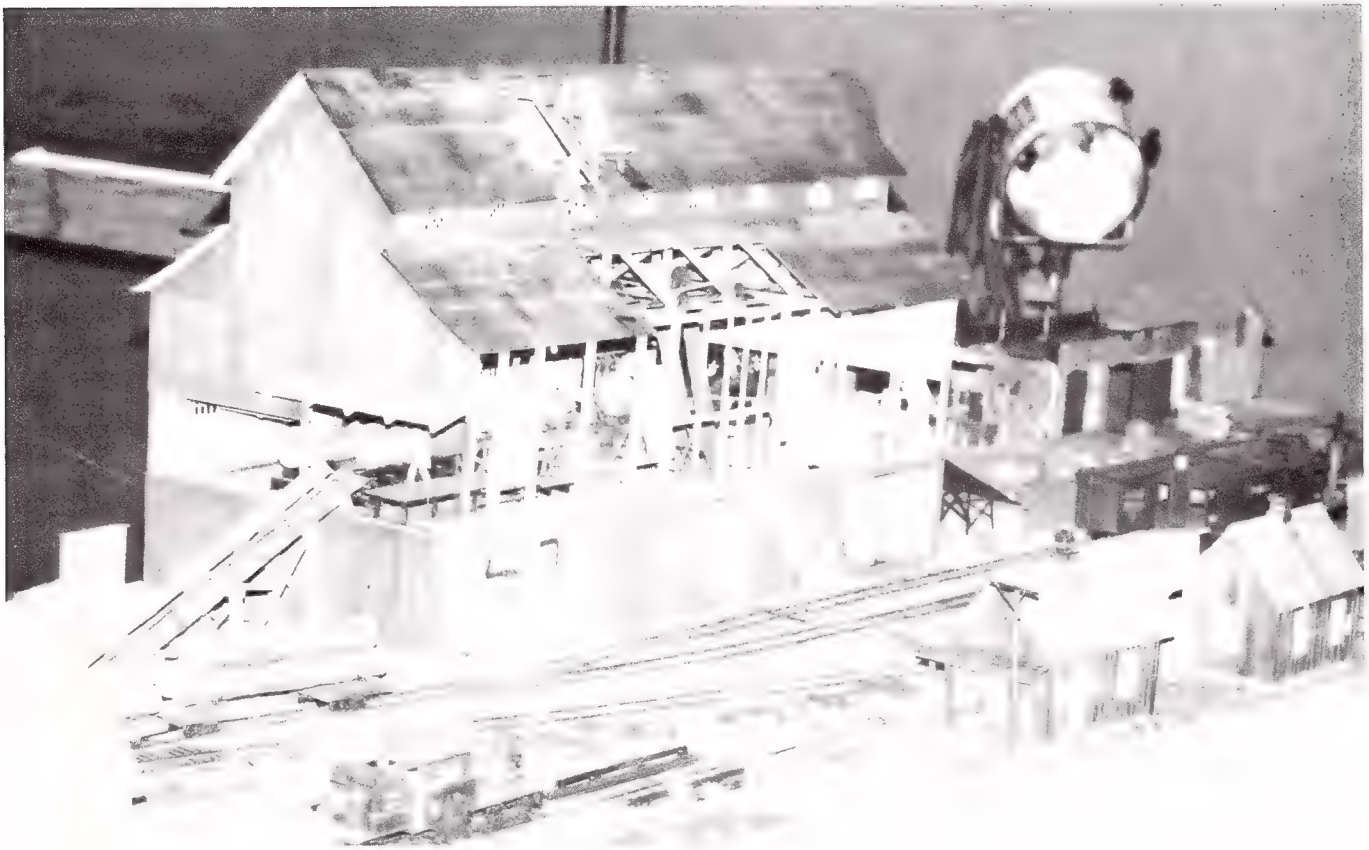


MAINTENANCE OF WAY
Jeff Saxon's ½n3 ditcher.

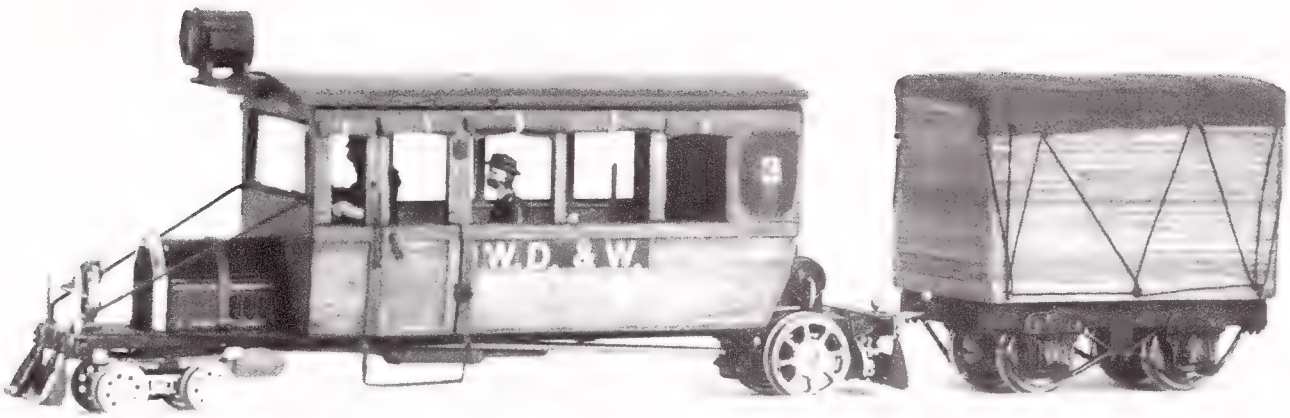


STRUCTURES
Robert L. Grimes' HO rock bunker.

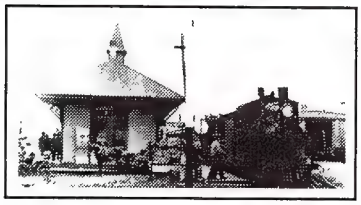
MODULES
Steve Fisher's On30 sawmill



DIESEL AND OTHERS
Terry Saxon's railbus
Photo by Jim Barron



Structures of the Maine Two-Footers. Part 1



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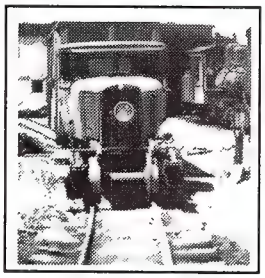

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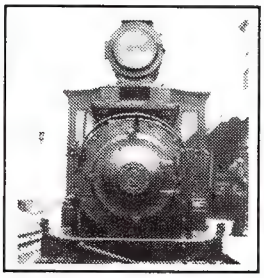

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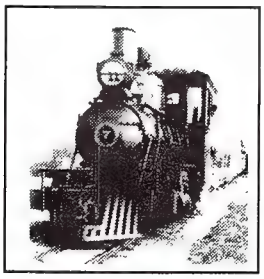

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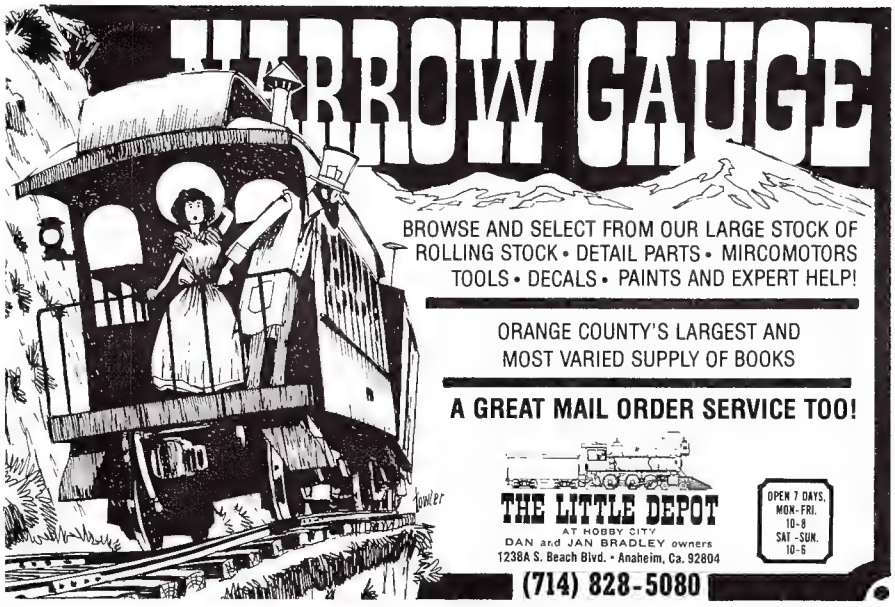
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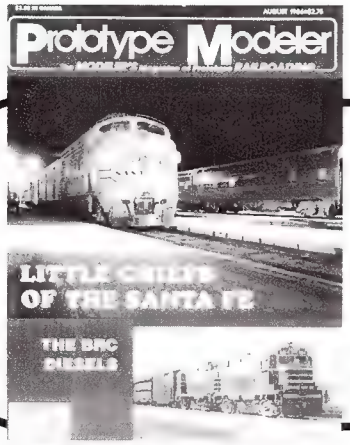

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BOOK REVIEWS

Narrow Gauge Railways – Two Feet and Under, Being a Treatise by Leslie S. Robertson, first published in 1898. Plateway Press, 13 Church Rd., Croydon, Surrey CRO 1SG, England, New edition, 1988 with additional material and an introduction by Andrew Neale. Hardcover, 68 pages, illus., 8.50 pounds.

This little book surveys some of the British railways existing in 1898 that had gauges of 2-feet and less. Two of the lines described are the 15-inch gauge Duffield Bank line, and the 18-inch gauge line that was at the the Lancaster & Yorkshire Railways's, Horwich works. There are 41 photos in the book and four excellent locomotive plans. The plans are for an 18-inch gauge Beyer-Peacock 0-4-0WT, an 18-inch gauge Manning-Wardel 0-4-0ST, a Sharpe-Stewart 24-inch gauge 0-4-2T, and a Kerr-Stuart 24-inch gauge 0-4-2T.

Plateway Press is endeavoring to produce fine quality books on the less known aspects of railway history. This excellent book should be of interest to those of you interested in British railways. *Bob Brown.*

That Little Train by Peter Cuffley, the Five Mile Press, 379 Smith St., Fitzroy, Victoria 3065, Australia, 1987. Hardcover, illus., 236 pages, $35.95 U.S. Available from Five Star Models, 37 Woodmason Rd., Boronia, VIC 3155 Australia.

This book is about the most famous railway in Australia, the Puffing Billy line. Located in the Dandenong Range in Fern Tree Gully, this little 30-inch gauge line has been running since 1900. It stopped operation in 1953 and was taken over by a preservation group in 1962 that has run the line ever since. This is a beautiful book full of color and black and white photos of the railway from 1900 to the present day. The chapters cover the early history and construction of the railway and its problems. Most of the book describes the people served by the line and the men and women who ran it. There are chapters on the berry growers, sports events, holidays, the Boy Scouts, the logging industry, the strawberry industry, and the locomotives, rolling stock, and right-of-way. It is really the story of how this little line affected the country and the people it served. It is delightful reading and the pages are full of vintage illustrations of everything from washing machines to apple peelers. The end papers are vintage maps of the line, there is a bibliography, and a complete index. If you like those lovely little Baldwin built, NA 2-6-2's you have come to associate with the Puffing Billy line, get this book. *Bob Brown.*

The Remarkable Railroad Passes of Otto Mears by William K. Strong, San Juan County Book Co., Silverton, Colorado, 1988, available from The Silverton Standard, 1257 Greene St., P.O. Box 8, Silverton, CO 81433. Softcover, illus., 35 pages, $3.95 plus $0.75 shipping.

This little book describes the unusual railroad passes issued by Otto Mears, founder of the Silverton Railroad and the Rio Grande Southern. The book starts with a brief background of each of these railroads and then discusses the various passes chronologically. Mear's first pass in 1888 was made from buckskin. In 1889 into the 1890s Mears issued gold or silver passes, sometimes in the form of watch fobs or lockets. Some of the passes were stamped and others were made up of delicate filigree.The book lists the names of the known recipients of each pass, and the present location of passes known to exist at the time the book was written. The passes are now very rare collector's items – many are in museums. The author owns Silverton Specialties and has produced several belt buckles that have been advertised and reviewed in the **GAZETTE**. This is a very detailed and scholarly book on a very special subject – it should be of interest to any Colorado narrow gauge fan or collector of Colorado Railroad memorabilia. *Bob Brown.*

Spectacular Railroad Photography – a Full Color Guide to Weather and Lighting Conditions by Roger M. Ingbretsen, Hundman Publishing, 5115 Monticello Dr., Edmunds, WA, 98020, 1988. Hardcover, illus., 128 pages, $32.50 plus $1.75 shipping.

This new photography book is beautiful – all of its photos are in color, and many of them are full page. The book is divided into ten chapters. The first is on the basic concept of railfan photography and discusses equipment and approaches to picture taking. The rest of the chapters cover sunrise, fog, rain, snow, sunset, early morning, and night photography, plus composition and "other" kinds of railroad photography. I found the book to be more inspiration than technique oriented. The text of all the chapters except the first is short, but the chapters are filled with, as the title says, "spectacular railroad photography" all of the contemporary railroad scene. The book shows you how beautiful fog, rain, or snow can be as a background for photos and tells you how to get beautiful photos in these weather conditions. This book is definitely for the aspiring railroad photographer, and would be useful to the veteran photographer who wants a fresh look at the world of railroad photography. I know I will look through the viewfinder of my camera with a new eye after reading this book. *Bob Brown.*

Narrow Gauge and Miniature Railways From Old Picture Postcards by Andrew Neale, Plateway Press, 13 Church Rd., Croydon, Surrey CRO 1SG, England, 1986. Softcover, 60 pages, 4.50 pounds or $11.95 U.S. postpaid surface ($3.00 extra for airmail.)

This little book consists of prints of postcards arranged by subject. It starts with several pages of indroduction about British narrow gauge railways and picture postcards. The cards are arranged into those on slate and ore lines, rural lines, the railways on the islands around England, mountain railways, pleasure lines, locomotive builders, Irish lines, the First World War, Foreign (to England), and 15-inch gauge lines. There is a list of the railways covered in the book. The only U.S. line included is the Mt. Washington Cog Railway (one card). *Bob Brown.*

VIDEO REVIEWS

Recollections of Miss Elizabeth Burroughs, the History of Railroading in Winthrop, Mass., Don Simonini Production Services, 503 Walnut St., Saugus, MA 01906. 38 minutes, narration, background music, $49.95 plus $2.00 shipping.

This tape tells the story of the early railroads around Winthrop, Massachusetts, and the 3-foot gauge Boston Revere Beach and Lynn Railroad that hauled commuters from North Boston up along the coast to Lynn. This line was first steam-powered, then converted to electric operation. This is an unusual railroad tape — it has very few photos of operating

trains. It starts in a classroom where a child is giving an oral report on local railways. The teacher, a fictional character named Miss Elizabeth Burroughs, begins to reminisce about her childhood when she rode the BRB&L. Miss Burroughs goes on to narrate the story of the railroads around Winthrop using post cards, old photos, some old motion picture film, and shots of present day scenes. There is some excellent film footage taken on the Wolfeboro Railroad in New Hampshire, with staged scenes, including excellent sets, and costumes. These scenes have a wonderful old-time look to them.

This is an excellent tape, full of nostalgia about railroads. It is not the usual series of run-by shots that we have become accustomed to in the other excellent videos available. Instead, this tape attempts to tell the story of the importance of the little railways and the BRB&L to the people in the Boston area. These little railroads touched their lives and this tape shows how. Good viewing for anyone interested in railroads. *Bob Brown.*

Sunrise to Sunset on the Yosemite Valley Railroad, Y. Video, 1622 W. Roseburg, Modesto, CA 95350. Sound, narration, background music, $43.00 including shipping in U.S.A.

This video is the story of one day in 1939 on the standard gauge Yosemite Valley Railroad. The images are simply a video copy of an 8mm home movie made by Virgil L. Boyer, a fireman on the YV from 1937 to 1944. Virgil's son, Gary F. Boyer produced the tape and has added background music and narration by George S. McCart, a fireman and engineer on the line from 1925 to 1944.

The tape starts with some general scenes of the line and a background song called "YV Man." It then shows an engineer arising to take the daily passenger run to El Portal near Yosemite. The shops and the people who ran the railroad are shown. The sub-titles give tonnage, costs of goods sold, and other fascinating details about the line. Well-known places like Bagby and Incline are shown. The viewer essentially rides the engine up the line. There are also many shots of a lumber train going out to Incline and coming back loaded to the mill. There are also shots of switching in Merced.

This is not a run-by video but rather the story of a railroad, the people who ran it, and the importance it played in its area. The narration by McCart is a little halting at some points but it is authentic and engaging. How many historic railroad tapes have been narrated by a former engineer who worked almost 20 years on the line? The 8mm film is also authentic; the tape has not been computer-enhanced and looks like old 8mm film, sepia-colored and a bit fuzzy from time to time. I enjoyed this tape and found it interesting viewing. *Bob Brown.*

Introduction to English Garden Railways, by West Lawn Locomotive Works, 2375 West Lawn Ave., Madison, WI 53711. Sound, narration, music, $25.00.

I really enjoyed this tape. Peter Olson, owner of West Lawn, has done an excellent job of presenting six garden railways. His tape is simply a series of pictures of operating garden railways. Each line is briefly described, including the track plan and basic methods of construction. Then there is shot after shot of the trains running by. You can hear them as they chuff along. In fact you can almost smell the oil. Five of the six lines are in England. One is in the United States. One of the lines runs a nice little Beyer Garratt from Tasmania. The last railroad is actually the operating track of the Gauge I Association. The trains operated on that track are a mixture of Aster and scratch-built engines. This is an inspirational tape designed to get you out in the garden building your own line. *Bob Brown.*

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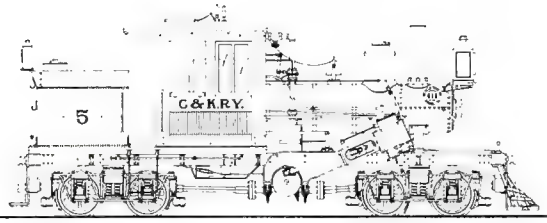

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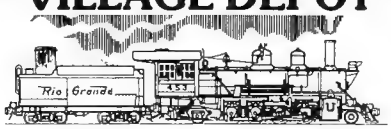

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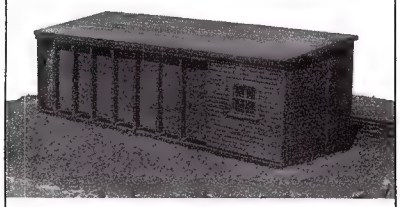

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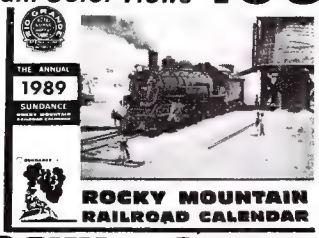

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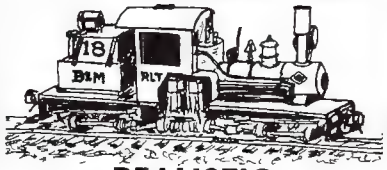

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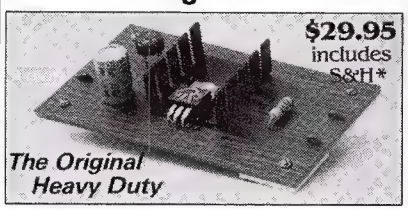

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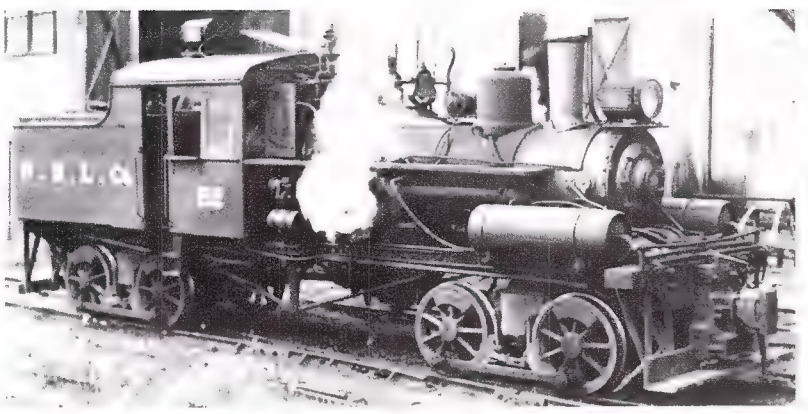

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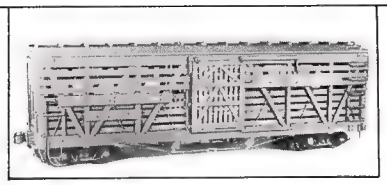

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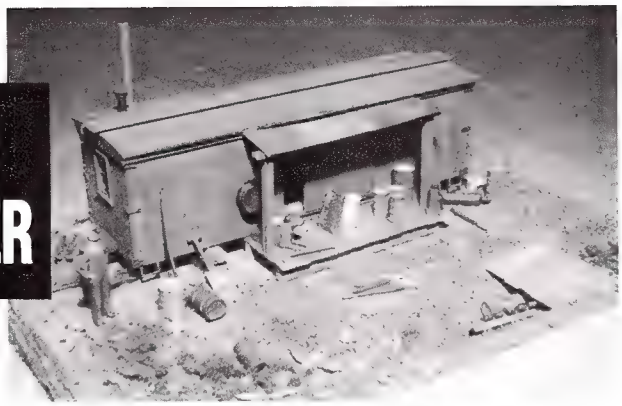

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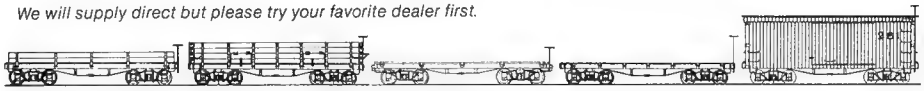

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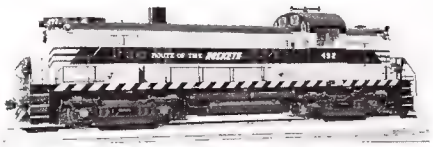

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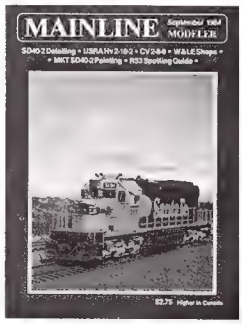

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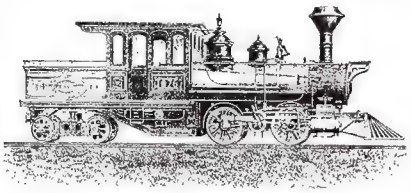

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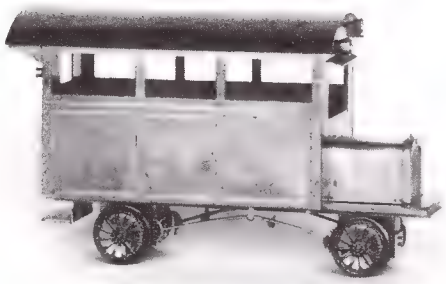

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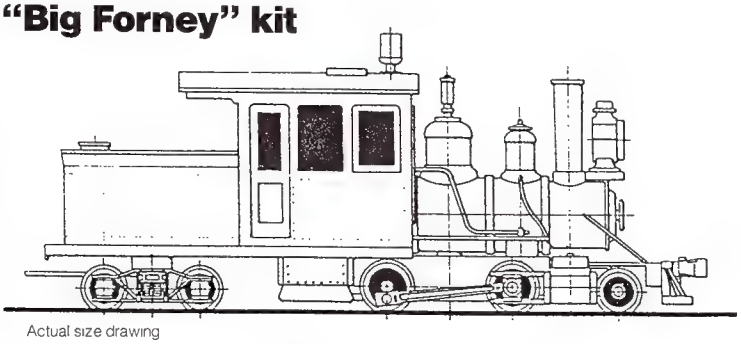

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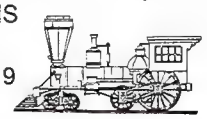

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WANTED: On3 P.S.C. Mich Cal 2 kits.; On30 Flying Zoo Koppel 0-6-0 kits. Gilbert Gribi, Prefaully 56, CH 1020 Renens Switzerland.

CUSTOM BRASS On2 SR&RL Model Number 16, 18, 24. Please send your offer to Gerhard Pastowski, AM Weidenfeld 60, D-3352 Einbe3ck 1 - West Germany.

FOR SALE or trade: O/On3 - Overland Willamette, $995; CB Sumpter Valley 2-6-6-2, $950; Uintah, $535; Overland C-18, $650; Balboa C-21, $395. HOn3 - Balboa T-12, $125; NWSL SP Diesel, $110. John Hutnick, 1132 Clinton Terrace, So. Plainfield, NJ 07080. 201/753-1968.

NEED: Tender oil bunker insert for On3 IHM/PSC NCNG No. 5. William Schaumburg, RD 5, Box 5090, Newton, NJ 07860.

FOR SALE: LGB blue boiler Mogul, as new, TRO, $385. LGB Swiss coach #3067, new, $145. Swiss electric crocodile loco #2040, like new - beautiful runner but one motor truck must be permanently reattached. $300. Henry Peterson, 61 West Rayburn Road, Millington, NJ 07946. 201/647-1110.

FOR SALE: Sn3 brass, mint/new condition, TRO; PBL D&RGW C-16 #278 Foreground Model w/ green boiler, sound, lites, $715; PBL Conoco tank cars - 2 black, 2 silver $140 each; PBL D&RGW #50 Diesel switcher, fact. paint, $215; PBL D&RGW C-18, custom-painted, lites, Dynatrol w/on-off switch, gorgeous!, $775; Overland Models K-36 #487, unpainted, mint, $750. R. Bartner, 325 Upper Holland, Richboro, PA 18954. 215/355-0445, 6 - 11 p.m.

On3 FOR SALE: Overland' Mich-Cal Shay #5, new $645.00. Robert Chilton, 3008 Raymond Ave., Roslyn, PA 19001.

FINE SCALE MINIATURE for sale. Kit #180 Sand House HO/HOn3. $100.00 or best offer. Warren Dewees, P. O. Box 625, Devault, PA 19432.

FOR SALE On3: Cabooses. Florence & Cripple Creek #5 by Westside. D&RGW four types by CB, PFM and Westside. Westside Lumber #'s 1 and 2 by PSC. SSAE for details. G. L. Plunkett, P. O. Box 246, Ridgecrest, NC 28770.

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WANTED: Alpine Engine House by South Park Lines. Also any DSP&P engines, cars, structures in On3. Jim Wing, Colorado Model Railroad Museum, 109 South Third St., Sterling, CO 80751. 303/522-7456, 303/522-4032.

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WANTED: CB D&RGW flanger Hon3 "OD" brass also Northwest Short LIne Connoisseur LIne CLW 2 - Westside Lumber Co. Caboose #2 HOn3 CLW 1 - Westside Lumber Co. Flatcar Hon3 Timberline Round Roof water tank. Vern Gebhart, 180 Albrecht Lane, Durango, CO 81301. 303/ 385-7662.

WANTED: Key HOn3 Colorado & Southern 2-8-0: #58, #60, #69, #71, #72, #73. Steve Belmont - 145 South 1860 West - Provo, Utah 84601. 801/ 374-2605.

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WANTED: ¼" Scale Models: Yorke, Brick Store DE-103, Comp'ny Housin' CH-110: Chooch, 1930's Service Station 6108, Machinery Sales Co. 6104, Small Town Warehouse and Annex 6110 and 6111, 1930's "Fish Hook Floodlight 5125, Ornate Billboards 5155: Gazzano Scale Models figure sets: Renwal "Original Edition" Ford 1940 Sedan... Kits only in "Original" boxes... Premium prices paid... Carlo Rossi, 40 St. Elmo Way, San Francisco, CA 94127.

WANTED: On3 Geared Locos, kits or built-up models. Leetown Climax, Kemtron Shays, USH Shays, PSC WSL Co. 3 trk. Shays, PSC 16 ton Shays, PSC Silver City Shay, PSC WSL Co. Heislers. Will buy or trade. Pacific Short Line, 710 N. 19th St., Cottage Grove, OR 97424. 503/942-4314.

WANTED: On3 Sunset D&RGW C-16 #278 mint TRO. Kevin Hassing. 3523 Golden Gate Way 3, Lafayette, CA 94549.

MODEL BUILDING, Kit or scratch, structure, loco or rolling stock. See my article elsewhere in this issue. Ken Ruble, 4696 Mia Circle, San Jose, CA 95136.

LOCOMOTIVE and car painting. Send SSAE for price list. Ken Ruble, 4696 Mia Circle, San Jose, CA 95136.

JOE WORKS Porter 0-4-0T HOn30 $39.95; Plymouth diesel HOn30 $44.95; Mini-land HOn3/HOn30, 2-6-0 kit C&S, DRGW,M SP $49.95; Coach $34.95; Combine $35.95; RPO 35.95; Baggage $31.95; Goose #4 $38.95; Jonan SP #1 GE 50 ton diesel (ptd) HO/HOn3 $134.95; Mack Railtruck HOn3 $54.95; Sequoia HOn3 56' Turntable $20.95, SR&RL Turntable $6.95; FED 1880 HOn3 4-4-0 $99.95; GE 16 ton Diesel/ Electric HO/HOn3 $89.95; Add $2.00 UPS, LSSAE for list. Tom's Shortline Hobbies, P.O. Box 1435, Modesto, CA 95353.

FOR SALE: HOn3 all mint, unpainted, test run only, in original boxes. PFM United Sumpter Valley 2-6-6-2 lates tun with full backhead detail $400; Westside C&S/RGS #74 2-8-0 $235; Hallmark EBT #12 2-8-2 $260; Joe Works/ Flying Zoo Mich Cal 2 truck Shay $140; Flying Zoo/Sugiyama 18 ton Climax $160; Keystone all metal 2 truck Shay kit with NWSL drive kit, both untouched $60. Asking prices inlcude shipping; make offer. John P. Johnson, 1521 Kalaniwai Place, Honolulu, Hawaii 96281.

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Sn3 FOR SALE: Overland D&RGW K-36's #487, #488. Recent release. New in box, $695.00 each. Craig Schwabauer, 2590 S. Carey Way, Denver, CO 80222. 303/756-7078.

COLORADO MIDLAND: Wanted Hallmark 200 or 300 tender, or Rio Grande K-37 (HOn3) tender. CMRy, 1731 N. Cooper, Colo. Springs, CO 80907.

CUSTOM MODELBUILDING: Structures, all scales. Bridges, engine service facilities, right of way structures, industries, etc. Kit building service available for all commercially available structure kits. Send business SASE for brochure to: Brum's Scale Models, 16 High Street, Peterborough, NH 03458.

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On3 FOR SALE OR TRADE for any WSLCo. Shays in On3: PSC 16 ton Tee Boiler Shay with lighting system and red firebox lights added, $650.00. Sunset C&S #74 reworked to D&RGW #74 painted and lettered, runs very well, 750.00. Balboa D&RGW #41 customized painted and lettered, 650.00. Complete onboard sound system M4 Mixer, steam and Diesel sound, K220 Dual Control pad, 2 throttles, constant lighting unit total worth 850.00, sell for $500. Test run only. Also HO kits (SS Ltd.) cars, engines. Send SSAE for list. Alec E. Adamyk, RD 4, Box 360-D, Kingston, NY 12401. (914) 658-8232.

OUT-OF-PRINT books for sale. Many narrow gauge and logging titles. LSSAE for list. I also purchase books and railroadiana. Gary R. Altschuler, P.O. Box 274-C, Convent Station, NJ 07961.

FOR SALE: Gazettes, Mainline Modeler, Finelines, Slim Gauge News, Modelmaker, and other model and prototype back issues and out-of-print books. LSASE for list. Vallette, Box 447-R, Bethayres, PA 19006.

On3 - PFM T-12, sound, excellent condition, $550. PFM/Kodama K-27, first run, sound, painted/weathered #463, excellent condition, $1000. Balboa C-21, painted/customized to #361, nice work, $450. PFM UTLX Frameless T/C, painted "GRAMPS" weathered, $175. All nice pieces, never had a layout to run them on. Tom Brugman, 3641 Kenwick Trail SW, Roanoke, VA 24018. 703/989-3022, evenings.

FOR SALE: 30 year collection HO and HOn3 locos, cars, structures, logging. LSASE for list. Steven Zonay, 5037 16th Ave. N., St. Petersburg, FL 33710.

FOR SALE OR TRADE: Slim Gauge News, bound and unbound copies of Volumes 2, 3 and 4. Need Volume One SGN and various issues of Finelines. V.R. Hale, 2585 Midway Road, Decatur, GA 30030.

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FOR SALE: C&S HOn3 Mint Brass. LSSAE for details. Alvin H. LaCour, 1411 19th St., Woodward, OK 73801.

WANTED: HO Santa Fe "3800 Class" 2-10-2 last run. Mint. Alvin H. LaCour, 1411 19th St., Woodward, OK 73801.

On3 RGS KITS. Durango Press Rotary Snowplow and #01 Drag Flanger. SS Ltd. - Ford Inspection Car, original owner. Mint condition. Each best offer. Richard F. Mihalyi, 1054 Doreen Place #1, Venice, CA 90291.

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WANTED: Railroad books, paper collections, cyclopedias, railroadiana, Steve Botan, 19822 Lexington, Huntington Beach, CA 92646.

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WANTED: On3 P.S.C. Westside Lbr. Shay #7. Earl Failla, P.O. Box 1179, Colfax, CA 95713. 916/346-2963.

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ADVERTISER INDEX

A.
American Model Builders Inc. 53
Animas Rail Products 92
Arkansas Valley Scale Models 99
Australian Locomotive Company 8

B.
Badger Air-Brush Co. 75
Beaver Creek Model Co. 76
BK Enterprises 62
Boyer's House of Toys 60
Brass Whistle Inc. 7

C.
C.H.B. Models 29
Caboose Hobbies 39
Carson & Colorado Railroad Co. 30
CDS Lettering Ltd. 62
Cheat River Coal & Lumber Co. 94
Colorado Tree Co. 92
Coronado Scale Models 53

D.
D.A.N. 9
D. J. Custom Builders 7
Delton Locomotive Works 52
Depot G Hobbies 95
Des Plaines Hobbies 7
Design Technics Miniatures 46

E.
Echoes of the Past 30

F.
Floquil Polly-S Color 4
Flying Zoo 95
Fourth National Sn3 Symposium 4
Friends of the East Broad Top 7

G.
G-R-S Model Brass 46, 93
Garden Railways Magazine 89
Gazette 77
Green Frog Productions 40

H.
Harry's Depot 7
Heimburger House Publishing Co. 29

J.
Jesse Jones Industries 94
Jim's Junction 29
Jonan Models 76

L.
LGB of American 41
Link & Pin Hobbies 9
Little Depot 89
Locomotive & Railway Preservation 92

M.
Mainline Modeler 94
Master Creations 61
Micro Engineering 62
Mitchell's Inc. 49
Model Builders Service Co. 93
Model Die Casting 60
Model Railroad General Store 30
Mulvi Models 76

N.
Ninth National Narrow Gauge Co. 15
North American Cartographics 98
Northwest Short Line 83

P.
P-B-L 40, 100
Pacific Rail News 10
Pacific Short Line Railroad Co. 52
Pecos River Brass 46
Peninsula Hobbies 11
Power Systems Inc. 93
Precision Scale Co. 91
Prototype Modeler 89
Pruett Publishing 9
Puffing Billy Models 94

R.
R. D. Publications 92
R. Robb Ltd. 52
Rail Line Co. 94
Railmaster 62
Railroad Avenue Models 70
Rara Avis Train Divison 95
John Rendall 94
Rick's Grande Narrow Gauge Car Shop 29
Rio Grande Models Ltd. 62
Rock Quarry 89
Ron's Art Graphics 95
Roy's Train World 10
Bill Roy 76

S.
San Juan Car Co. 7
San Juan Trading Co. 93
Sandy River Car Shops 89
Schmalspur & Feldbahn 46
Shingaku-Do 65
Silverton Specialties Co. 10
Sono Nis Press 76
Sublime Design 93
Sundance Publications 93
Sunday River Productions 65
Switchmaster 8

T.
Tall Timber - Short Lines 92
Terminal Hobby 11
Tinkertown Inc. 93
Tomalco 76
Trains of Texas 2
Trout Creek Engineering Inc. 11
Trowbridge Press 8

U.
Underground Railway Press 9
United Minari 46

V.
Village Depot 92
Vintage Reproductions 60

W.
W & R Enterprises 93
W. B. Video Productions 45
Wallace Enterprises 95
Wm. K. Walthers, Inc. 47
West Lawn Locomotive Works 62
Westside Reunion 30
White Ground Model Works 10

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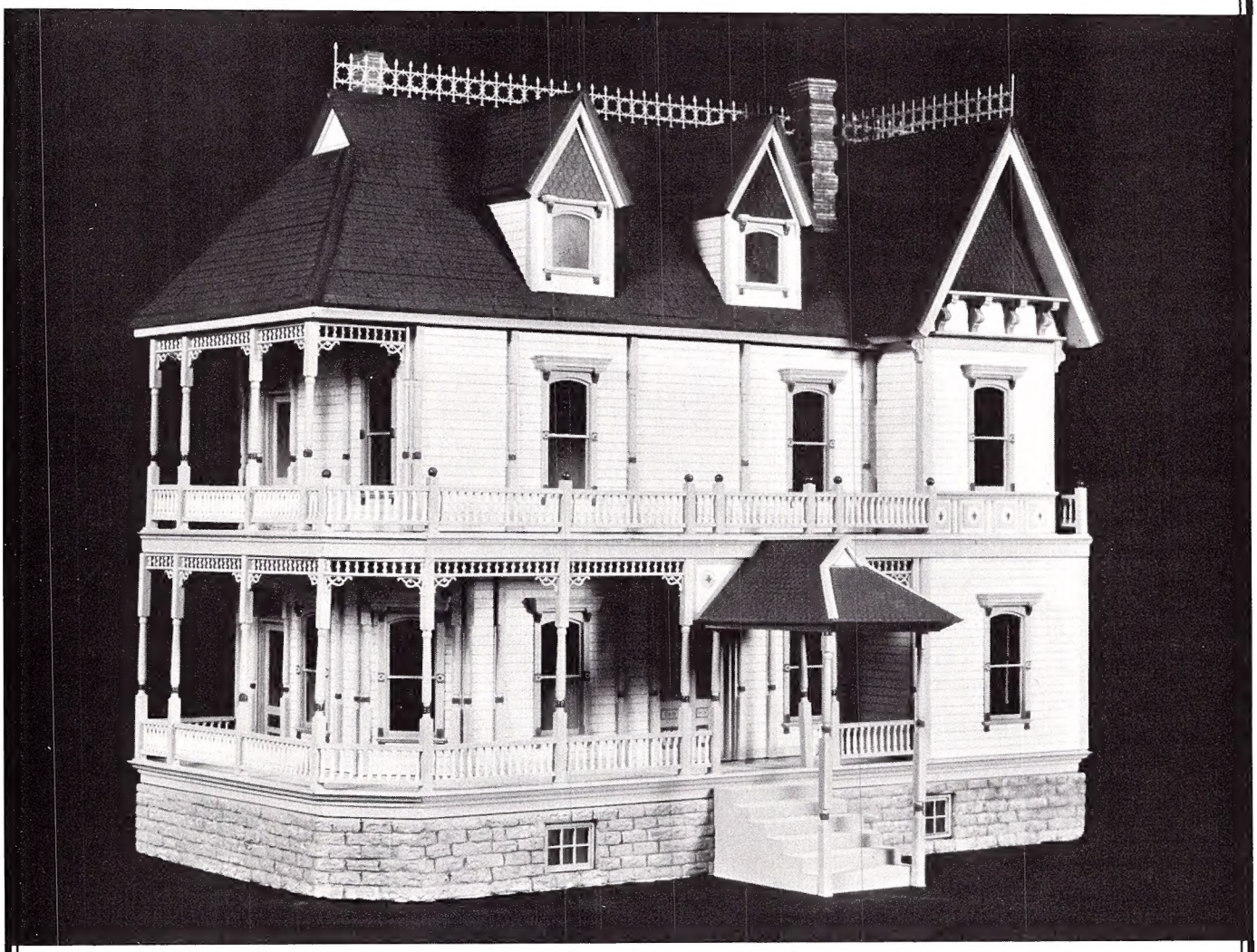

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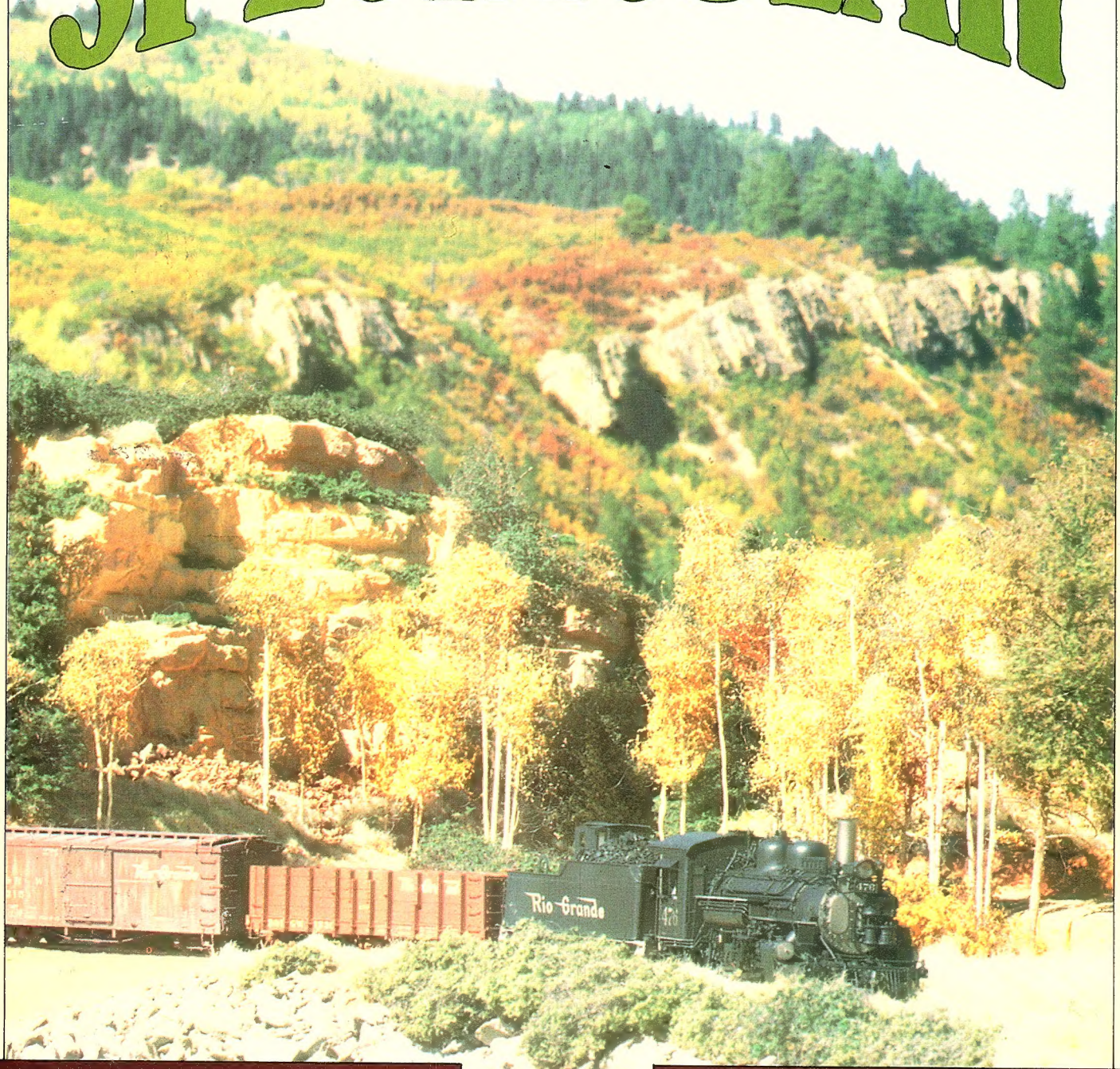

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